

PSYCHOLOGICAL ABSTRACTS

EDITED BY

WALTER S. HUNTER, CLARK UNIVERSITY
RAYMOND R. WILLOUGHBY (*Associate Editor*)
CLARK UNIVERSITY

WITH THE COÖPERATION OF

F. C. BARTLETT, CAMBRIDGE UNIVERSITY
ED. CLAPARÈDE, UNIVERSITY OF GENEVA
G. C. FERRARI, UNIVERSITY OF BOLOGNA
A. MICHOTTE, UNIVERSITY OF LOUVAIN
L. E. MIRA, UNIVERSITY OF BARCELONA

V. OSIPOV, LENINGRAD
H. PIÉRON, SORBONNE
M. PONZO, UNIVERSITY OF ROME
P. RANSCHBURG, HUNGARIAN UNIVERSITY
M. L. REYMERT, MOOSEHART, ILL.
W. WIRTH, UNIVERSITY OF LEIPZIG

CONTENTS

General.....	1261-1283
Sensation and Perception.....	1284-1312
Feeling and Emotion.....	1313-1318
Attention, Memory and Thought.....	1319-1327
Nervous System.....	1328-1333
Motor Phenomena and Action.....	1334-1350
Plant and Animal Behavior.....	1351-1376
Evolution and Heredity.....	1377
Special Mental Conditions.....	1378-1416
Nervous and Mental Disorders.....	1417-1479
Social Functions of the Individual.....	1480-1530
Industrial and Personnel Problems.....	1531-1560
Childhood and Adolescence.....	1561-1604
Educational Psychology.....	1605-1644
Biometry and Statistics.....	1645-1649
Mental Tests.....	1650-1658

PUBLISHED MONTHLY, WITH TWO ISSUES DURING DECEMBER, BY

THE AMERICAN PSYCHOLOGICAL ASSOCIATION
PRINCE AND LEMON STS., LANCASTER, PA.

Business Offices: PSYCHOLOGICAL REVIEW COMPANY
LANCASTER, PA., AND PRINCETON, N. J.

Subscription, \$6.00 per year; Foreign, \$6.25.

Entered as second-class matter February 5, 1927, at the post-office at Lancaster, Pa., under the Act of March 3, 1879.

AUTHOR INDEX.

- Abadi, E. 1650
Abely, X. 1417
Achilles, P. S. 1361
Albane, A. 1431
Albernas, P. M. 1334
Alexander, E. M. 1378
Allendy, E. 1379
Allison, L. W. 1346
Allport, F. H. 1383,
1480, 1481
Anderson, J. E. 1605
[Anon.] 1606, 1607
Anson, K. 1561
Aptel, H. 1482
Aptel, E. 1351
Arkin, G. E. 1562
Armitage, D. M. 1418
Armstrong, C. F. 1651
Aryamov, I. A. 1568,
1564
Astrakhan, E. 1557
Austregesilo, A. 1323
- Balassa, L. 1415
Banisconi, F. 1284,
1325, 1531
Baranyay, E. 1608
Barbe, A. 1419
Baruk, H. 1420, 1421,
1427, 1474
Bassett, C. 1609
Baudouin, C. 1380
Beaglehole, E. 1483
Beck, L. F. 1317
Belych, G. 1565
Benedek, L. 1422
Berstin, P. N. 1566,
1567
Berlitz, B. 1423
Beuter, J. E. 1424
Bieber, J. 1425
Blen, E. 1381
Bingham, W. V. 1332
Bobrov, B. 1567
Boda, L. 1262
Bonaventura, E. 1532,
1533, 1534
Booms, E. J. 1484
Boring, E. O. 1283
Bradbury, D. E. 1608
Bragman, L. J. 1383
Braunhofner, J. 1568
Breitenbecher, J. K.
1552
Breslich, E. R. 1610,
1611
Briggs, D. H. 1612
Britan, H. E. 1313
Brolyer, C. E. 1652
Brown, C. M. 1613
Brücke, E. 1329
Bryan, A. H. 1353
Burloud, A. 1354
Burridge, W. 1330
Buscaino, V. M. 1314
Busquet, H. 1285
Butler, N. M. 1614
- Cannon, W. B. 1348
Case, I. M. 1603
Castellani, M. 1284
Celle, J. 1286
Chernikova, O. 1557
Chevrea, L. C. F. 1438
Clark, E. B. 1335,
1556, 1557, 1558,
1559, 1560
Clark, L. P. 1335
Claude, H. 1427, 1428
Cloud, J. H. 1264,
1287
Codet, H. 1315
Colaiziani, G. 1265
Coleman, E. M. 1429
Collens, E. L. 1375
Colucci, C. 1485, 1541,
1589, 1653
Combe, L. 1316
Combes, M. 1354
Cook, E. C. 1615
Cook, W. W. 1616
Copeland, H. A. 1266
Corey, E. M. 1633
Cornelissen, C. 1319
Cotton, E. 1480
Coudere, L. 1460
Court, S. E. A. 1570,
1571
Courtois, A. 1475, 1476
- Crabb, E. D. 1355,
1356
Crimaud, R. 1295
Cros, A. 1357
Crossland, H. R. 1317
Cuccia, A. 1288
Cuff, N. B. 1356
- D'Agostino, V. 1367
Darge, H. 1332
Daviau, A. R. 1268
De Cooman, E. 1286
Deima, F. A. 1431
Denisov, L. 1572
Dennis, W. 1269, 1358
Dennet, S. 1542
Dewey, J. 1378
D'Huqueville, G.
1432
Dietze, A. G. 1270
Dies Gases, M. 1543
Dolansky, V. 1289
Dorsch, E. 1486
Douglass, H. R. 1617
Dufourmental, —, 1455
Dugas, L. 1320, 1386,
1487
Dunlap, K. 1359
Duthil, E. 1387
Dwelshauvers, G. 1388
- Eckstein, F. 1389
Eng, H. 1573
Eulich, A. C. 1618,
1619
Evans, H. M. 1360
Ewen, J. H. 1390
Ey, H. 1484
- Fernandes, R. 1391
Ferreira, A. 1337,
1392, 1488
Fleischer, E. 1290
Flemming, C. W. 1620
Fontaine, D. 1393
Ford, A. 1271
Forel, O. L. 1435
Freedman, B. 1439
Freud, A. 1394
Friedl, B. C. 1374
Fry, H. K. 1372
Fuller, H. A. 1447
- Gaiser, D. W. 1353
Gajendragadkar, K. V.
1273
Gaido, L. 1338, 1544
Gall, A. 1339, 1547,
1548
Galsworthy, J. 1490
Garnett, A. C. 1274
Garon, M. 1486
Gaspard, J. 1491
Gates, A. J. 1321
Gatti, E. 1545
Gebhardt, M. 1291
Gemelli, A. 1546, 1547,
1548
Gentry, E. 1359
Gerberich, J. R. 1622
Gergov, E. 1623
Gesell, A. 1573
Glueck, E. 1492
Goldberger, M. 1576
Goodenough, F. L.
1315, 1577
Gorphe, F. 1493
Gottstein, W. 1578
Guilford, J. P. 1645
Guillaume, P. 1261
Guiraud, P. 1436, 1494
Günther-Schwerin, L.
1385
Gur-Gurewitsch, W. M.
1579
Guseva, E. 1567
- Haby, G. 1292
Hadlich, H. 1437
Haacker, V. 1377
Haire, N. 1495
Hansen, K. 1496
Hanna, E. 1497
Harrower, M. E. 1298
Hastings, M. L. 1624
Helsmoortel, J. 1440
Helson, H. 1293
Herbst, B. L. 1635
- Hermann, I. 1415
Hetsner, H. 1580
Heuyer, G. 1483, 1489,
1442
Hilferty, M. M. 1649
Hoffman, W. S. 1626
Holt-Hansen, K. 1294
Hols, G. V. 1531
Hooton, E. A. 1498
Howell, L. D. 1363
Hull, C. L. 1362
Hunsicker, L. 1627
Hunter, W. S. 1275
- Iivento, A. 1549
Imro, S. V. 1415
Ivanov, G. P. 1582
- Jacques, P. 1295
Jaensch, E. 1276
James, E. O. 1499
Jones, E. 1396
Jones, H. E. 1583
Jordan, A. M. 1612
- Kappers, C. U. A. 1331
Karn, H. W. 1364
Karpman, B. 1500
Kent, G. H. 1634
Kernstock, K. 1415
Kiesow, F. 1296, 1297
Kilzer, L. R. 1623
Klein, M. 1393
Koch, A. 1584
Koffka, K. 1298
Kondratyeva, L. 1567
Koslov, P. A. 1550
Kostolanyi, D. V. 1415
Kovarsky, V. 1390,
1440
Kranefeldt, W. M.
1400
Kranich, E. 1329
Kransee, V. v. 1629,
1630
Kravkov, S. W. 1299
Kreiser, G. 1332
Kruiger, R. G. 1277
Krupy, O. 1585
Kyriaco, —, 1441
- Lacan, J. 1434
Lahy, J. M. 1442
Landis, C. 1382, 1401
Langre, M. 1443
Langeau, R. 1433
Lederer, F. v. 1350
Leeper, R. B. 1444
Lehman, H. C. 1501
Lehnen, H. 1653
Lénart, E. 1415
Leroux, E. 1321
Leuch, E. 1592
Levashev, E. 1567
Levi, L. 1586
Levy, J. 1587
Londhe, D. G. 1300
Longostrevi, P. 1341
Loriod, G. 1503
Luisada, E. 1504
Lukács-Bárány, I. 1538
Lutowski, G. 1391
- Macquart, E. 1342
Máday, S. v. 1415
Maitra, S. K. 1505
Makedvedeva, —, 1555
Male, P. 1445
Mallet, R. 1445
Mandeville, S. 1506
Mantovani, G. 1341
Marchand, L. 1446,
1447, 1476
Marchisfava, E. 1448
Margenau, H. 1378
Marro, G. 1507
Martrille, D. 1456
Masson-Oursel, P.
1508, 1279
May, M. A. 1402
Mayer, F. 1656
McAllister, W. G. 1365
McCowan, P. K. 1449
McDermott, J. F. 1403
McGeach, G. O. 1322
McLaughlin, M. A.
1494
Meek, L. H. 1599
Mengert, I. G. 1608
- Meuninger-Lerchenenthal,
E. 1392
Menon, V. K. K. 1405
Metzger, W. 1303
Meutré, F. 1304
Meyerson, I. 1361
Miles, W. H. 1343,
1551
Miller, E. 1450
Miller, G. F. 1590
Miller, M. D. 1590
Minkowska, —, 1451
Miskolcay, D. 1452
Missriegler, A. 1406
Montassut, M. 1453
Montelli, A. E. 1591
Moore, E. S. 1592
Moore, T. V. 1646
Morgenstern, S. 1407
Morgenthaler, W. 1408
Morlet, P. 1509
Morlet, P. 1509
Moss, F. A. 1282, 1409
Mukerji, A. C. 1289
Müller, J. 1510
Murphy, G. 1511
Musatti, C. L. 1323,
1324, 1552
Myasishchew, W. 1537
Myers, C. S. 1533
Myers, G. C. 1598
- Nacht, E. 1428
Nagy, L. 1415
Nahrhaft, O. 1612
Neill, A. J. 1344
Nemes, M. M. 1415
Neoussikine, B. 1432
Neuber, E. 1514
Neumann, J. 1513
Nico, L. B. 1344, 1366
Nico, M. M. 1345,
1367, 1590, 1594
Nichols, C. A. 1515
Niederhöffer, E. v.
1631
Nyssen, R. 1340
- O'Neill, G. 1647
Ott, E. 1454
Otte, A. 1657
- Page, I. H. 1333
Panteleev, L. 1565
Pata, M. 1555
Patrick, J. E. 1398
Pende, N. 1516
Penrose, L. S. 1477
Peri, A. 1554
Perkins, M. L. 1633
Petersen, S. 1455
Peterson, J. 1346
Petit, G. 1456
Petrov, D. 1555
Petrovle, A. 1347
Pezard, A. 1305
Pfister, O. 1517
Philippova, O. 1557
Phillips, N. R. 1457
Pikler, J. 1306
Polack, —, 1307
Pollock, H. M. 1458
Ponso, M. 1308, 1556
Popova, O. 1596
Porak, E. 1427
Potthoff, E. F. 1633
Pouffary, —, 1441
Preskurnina, E. 1584
Pressey, L. C. 1634,
1635
Pressey, S. L. 1635
Pringle, R. W. 1636
- Quastel, J. H. 1449
- Ragdale, C. E. 1687
Rajnas, F. 1415
Ranschburg, P. 1450
Reiser, O. L. 1518
Rennie, A. E. 1369
Retesmann, A. 1478
Révész, M. 1415
Richardson, M. A. 1484
Richmond, F. C. 1519
Robinson, F. P. 1638
Rodiet, A. 1460
Rogers, J. F. 1530
Römer, A. 1321
- Rosanov, T. G. 1557
Rosa, E. L. 1370
Rosenbluth, A. 1348
Rosett, J. 1461
Rubenovitch, P. 1475
Ruiland, L. 1522
Rybnikov, N. A. 1596
- Sageret, J. 1325
Sagorowski, P. L. 1597
Sartorius, I. C. 1639
Schachter, M. 1462
Schaffer, K. 1463
Schjeldrup, H. K.
1523
Schiff, P. 1464
Schlink, E. 1524
Schmidt, F. 1598
Schroeder, T. 1465
Schulz, B. 1466
Schumacher, W. 1326
Schwab, —, 1410
Seashore, C. E. 1525
Second, J. 1327
Shiporovich, W. 1567
Silverberg, W. V. 1411
Sims, V. M. 1640
Slater, J. E. 1371
Smirnov, A. A. 1509
Smith, V. C. 1641
Solomons, E. 1467
Stekel, W. 1412, 1413,
1526
Stephenson, W. 1468
Strang, R. 1642
Strauss, E. B. 1469
Street, R. F. 1658
Stroud, J. B. 1281
Sondl, L. 1415, 1470
Suda, G. 1414
- Tashjian, E. 1349
Teulie, G. 1471, 1472
Theiss, H. 1527
Thom, D. A. 1473
Tinel, J. 1474
Tinker, M. A. 1318
Todd, J. B. 1396, 1372
Torgerson, T. L. 1443
Tóth, L. 1528
Toulouze, M. 1475,
1476
Trelles, J. O. 1464
Trevas, M. 1283
Truche, —, 1417
Tryon, R. C. 1373
Tsai, L. S. 1374
Tschimolossow, A.
1347
Tugendreich, G. 1600
Turner, F. D. 1477
Tuskal, O. 1601
- Upjohn, E. 1375
Urechia, C. I. 1478
- Van Gennep, A. 1620
[Various], 1415
Varró, M. 1415
Vilenkina, H. G. 1553
Viteles, M. E. 1559
Vygotski, L. S. 1602
- Wachholder, E. 1350
Washburn, M. F. 1375
Waterhouse, E. S. 1530
Watson, J. B. 1322,
1416
Way, E. F. 1399
Wechsler, D. 1648
Weese, A. O. 1369
Wellman, B. L. 1603
White, L. A. 1376
Whitmer, C. A. 1310
Williams, K. J. 1311
Williamson, E. G. 1644
Wilcox, E. B. 1649
Winkelmann, H. W.
1479
Witt, P. A. 1501,
1604
Worsham, J. A. 1560
- Yerkes, R. M. 1293
Young, P. T. 1312
- Zeigler, T. 1359
Ziehen, T. 1377

PSYCHOLOGICAL ABSTRACTS

VOL. VI, No. 4

APRIL, 1932

GENERAL

1261. Achilles, P. S. [Ed.] *Psychology at work*. New York: Whittlesey House, McGraw-Hill, 1932. Pp. xiii + 260. \$2.50.—A comprehensive presentation of the applications of psychology in various fields, derived from a series of lectures on psychology and its useful application, as arranged by the Psychological Corporation of New York City and delivered during 1931. I. Psychology and the pre-school child, by L. H. Meek; II. The study and guidance of infant behavior, by A. Gesell; III. Psychology and education, by A. I. Gates; IV. The foundations of personality, by M. A. May; V. Psychology and the professions, medicine, law, and theology, by W. R. Miles; VI. Psychology and industry, by M. S. Viteles; VII. Psychology in relation to social and political problems, by F. H. Allport. See V: 1402, 1481, 1551, 1559, 1575, 1589, 1621.—O. L. Harvey (Cambridge, Mass.).

1262. Boda, I. *Mitoss-e vagy tudomány?* (Myth or science?) *Athenäum*, 1930, No. 36. Budapest.—The author denies the theory of J. Nagy (*The Idea of Evolution*, *Athenäum*, 1929, No. 1-2), asserting that each imaginable explanation (interpretation?) of the world and accordingly each possible philosophy is myth, i.e., the myth of transcendence or of immanence.—P. Ranschburg (Budapest).

1263. Boring, E. G. *The physiology of consciousness*. *Science*, 1932, 75, 32-39.—Although dualism has no place in a scientific psychology, psychology can make use of both consciousness and the nervous system. A distinction is drawn between the phenomenal and the constructional world. Introspection, like any other observation, is a noting of symbols which mean occurrences in the constructional world. Introspection yields "phenomenal objects" such as sensations and seen movements. The constructs which these mental objects best symbolize are brain processes. Accordingly "introspection is a method for the observation of certain events in the brain." Titchener's organization of consciousness in four dimensions, intensity, extensity, protensity and quality, is accepted. The facts of the physiology of nerve processes are examined, and upon the basis of this examination, the conclusion is drawn that the four conscious dimensions "find reality in four physical dimensions of intensity, extensity, duration and an uncertain fourth which must have an immediate dependence upon the physical variable for quality in the stimulus." Sensed intensity represents degree of excitation in the brain. The view that phenomenal extensity corresponds to extensity of brain activity is useful. Little is known concerning the physiology of phenomenal protensity, but

search should be made for durations of nerve processes which correspond to durations of perceptions. Although we have no satisfactory hypothesis concerning the physiology of quality, we may be certain that "it must be dependent upon whatever quality is within the stimulus."—B. Casper (Clark).

1264. Cloud, J. H. *The phoneloscope for sound intensities*. *Proc. Okla. Acad. Sci.*, 1926, 6, Pt. II (*Univ. Okla. Bull.*, N. S. No. 348), 297-298.—The essential parts of the phoneloscope are a mirror attached to a spindle which is supported on jewelled bearings. Around this spindle is wound a ribbon, one end of which is attached to the diaphragm of a mouthpiece. Any motion of the diaphragm is communicated to the spindle, as in the ordinary bow drill. Light from an arc is reflected at the lower mirror on to the vibrating mirror, and from there to the screen; the lens carried by the instrument is placed so that the source and the screen are conjugate foci. Since light is deviated through twice the angle through which the mirror is rotated, and since the screen may be placed a long distance from the mirror, the sensitiveness may be increased almost without limit. The experiments previously reported were obtained by use of a Rayleigh disc and a Webster phonometer. These same experiments have been repeated with the phoneloscope, and the results agree fairly well with those obtained previously.—M. O. Wilson (Oklahoma).

1265. Colajanni, G. *Nuovo apparecchio per l'esame del senso cromatico*. (New apparatus for the examination of color vision.) *Ann. di ottalmol. e clin. ocul.*, 1931, 4, 360-364.—The author describes the apparatus and explains its use.—A. Angyal (Turin).

1266. Copeland, H. A. *An apparatus for recording electrical change*. *J. Exper. Psychol.*, 1931, 14, 180-183.—Holes are burned in a moving paper tape by high tension sparks from the pointer of a milliammeter. The principle is similar to that of the previous devices of A. Ford and Lindley.—S. Renshaw (Ohio State).

1267. D'Agostino, V. *Modernità di concetti psicologici in Quintiliano*. (The modernity of the psychological concepts in Quintilian.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 211-215.—A. Angyal (Turin).

1268. Daviau, A. R. *Why we do it: a study of normal, subnormal, and abnormal human behavior*. Boston: Meador, 1932. Pp. 231.—"To those who study human nature as it really is, and not as they would like it to be, to those who study human character with an open mind, psychology may still remain a desirable study having a very important part

to play in the development of human knowledge; but, nevertheless, to those persons studying human mentality with an impartial mind, the study of eugenics, the study of hereditary influences, is bound to become more important than the study of psychology." The general theme is "heredity versus psychology." The book is intended for welfare workers.—*N. L. Munn* (Pittsburgh).

1269. Dennis, W. A block elevated maze for rats. *J. Comp. Psychol.*, 1931, 12, 429-432.—An extremely simple laboratory maze is described which, according to the author, has several advantages over the skeleton elevated maze.—*N. L. Munn* (Pittsburgh).

1270. Dietze, A. G. A study manual to accompany Daehliell's *Fundamentals of Objective Psychology*. Pittsburgh: Author, 1931. Pp. vii + 127. \$1.25.—Keynote questions and study questions suggest the larger study objectives of each chapter and analyze the chapter content in considerable detail. Longer exercises and projects give ample material for supplementary study and assignments by the instructor. All technical words used are listed for each chapter under the caption *Terms to Master*. The second part of the book gives new type ("objective") review tests, together with answer keys. A bibliography lists 135 titles to which references are made in the exercises. 48 blank note pages follow the 127 pages of text.—*J. H. McFadden* (Pittsburgh).

1271. Ford, A. The correlator. *J. Exper. Psychol.*, 1931, 14, 155-163.—An electrical device, using banks of potentiometer integrators, for determining the Pearson r from double entry tables.—*S. Renshaw* (Ohio State).

1272. Fry, H. K. Physiological and psychological observations. *Trans. Roy. Soc. So. Australia*, 1930, 54, 76-104.—(Bibliographia Eugenica).

1273. Gajendragadkar, K. V. Aristotle on Plato's theory of knowledge. *Rev. Phil. & Rel. (India)*, 1931, 2, 137-142.—*O. L. Harvey* (Cambridge, Mass.).

1274. Garnett, A. C. The mind in action. New York: Appleton, 1932. Pp. xii + 226. \$2.00.—The author sets his task as the tracing of the motives to their ultimate sources, the classifying of the sources and the showing of their relation to the life history of the human species. "Every living organism, so long as it is conscious, constantly seeks to express itself in ever-changing activity." It goes out to meet stimuli and to react to them. "Pure play is activity for activity's sake." The human motives are aversion to or escape from sensory pain, from the appetitive pains or pains of unsatisfied wants (food, drink, air, sleep, rest from fatigue, physical exercises, excretion and sex), from the emotional pains which arise when some other natural impulse or instinct goes unfulfilled. The appetitive motives are innate, periodic physiological ends, while the instinctive motives are innate, occasional psychological ends. Defining instinct, the author says that "instinctive behavior is the pursuit, with more or less foresight, of an innately determined end in response

to the cognition of a meaningful situation." The experience of peculiarly heightened conation is emotion, a conation heightened by internal sense stimuli which it has itself caused. The instincts are nutrition, sex, sleep, escape, pugnacity, repulsion, curiosity, acquisition, construction, hunting, parental care, appeal, gregariousness, self-display, leadership, submission. The acquired sources of action are motor and conative habit, and sentiment (love and loyalty, respect and hatred). The author then develops the relationship of conative habit and sentiment in moral conduct, religion, truth, beauty.—*E. B. Heim* (Provo, Utah).

1275. Hunter, W. S. The psychological study of behavior. *Psychol. Rev.*, 1932, 39, 1-24.—Does the behavior studied by the psychologist possess characteristics which distinguish it from the behavior studied by other sciences, particularly biology? The philosophical distinctions of traditional psychology, which limited its proper domain to the direct study of experience and its physiological correlates, are no longer tenable. The new behavioristic psychology, growing up under the influence of the biological tradition, is mainly concerned with externally observable behavior, emphasizing functions extrinsic to the bodily structures, and stresses adaptation to the social environment. It is thus distinguished from physiology, which is concerned with internal, subcutaneous activities, intrinsic functions, and ignores the social aspects of the environment. Psychology therefore has a much more difficult problem in classifying its phenomena than does physiology, because there is a much closer interdependence of behavior inside than outside the organism, and a greater uniformity in the intra-organic situation which must be met, so that classification in terms of particular structures is possible in physiology, whereas in psychology vicarious functioning precludes it. But psychology could well give more emphasis to the subcutaneous approach and so share with physiology the discovery of the underlying mechanisms of behavior.—*A. G. Bills* (Chicago).

1276. Jaensch, E. IV. Grundriss der Kategorienlehre auf der Grundlage psychologischer Strukturtypologie (Schluss). (Outline of the theory of categories on the basis of psychological structure-typology. Conclusion.) *Zsch. f. Psychol.*, 1931, 120, 46-125.—The theoretical point of view developed in earlier chapters is compared with such related forms of categorical thought as Gestalt psychology, conscious psychology, psychovitalism, idealism, neoplatonism, materialism, and Kant. In all of these, interest is restricted to a narrow section or particular aspect of the whole scale of reality, which this theory alone envisages. Gestalt psychology sees only one quality of the structure B, its dependence on the whole, while conscious psychology and psychologies of culture are interested only in its relation to the top level of the scale. Philosophical idealism explains the whole world as the B characteristic of the highest psychic life. Psychovitalism again is interested only in the middle part of the scale, the

relation of the inorganic to the organic. Idealism, Bergson and neoplatonism are concerned only with what might be considered extrapolated steps at the top of our scale in the region which we consider unknowable. They are dealing with dynamic relationships, while our theory describes only static ones. Materialism's limited viewpoint nevertheless has great usefulness, especially in the medical field. Morphological idealism deals again with a small issue: the relation of man to the world. Hartman's doctrine of unreal values differs from the author's view not in the concept of a scale of values but in calling them unreal. Values exist in nature, but must be grasped by a conscious psychic act. There is a tendency to ascend the scale of values toward the norm, and incidental to this uneven progress there may be a transient disharmony. The teleological development results in more complete adaptation to conditions, but these adaptive changes may be overspecialized and crowd out other useful functions. For instance, in our civilization abstract and quantitative forms of thought have been cultivated at the expense of all other qualitative facts of consciousness. Such a qualifying of the scale of values leaves out much of reality. We must not forget our own limitations and especially our tendency to consider as real only those things which are visible. In a note the author gives some examples of so-called telepathy which may be explained by the theory of categories as here presented.—*M. Lee* (Chicago, Ill.).

1277. Krueger, R. G. An improved system of kymograph recording. *J. Exper. Psychol.*, 1931, 14, 176-179.—A paper coated with paraffin, stearic acid, zinc white and rosin (Stylograph Corp., Coldwater, N. Y.) is used with a stylus of metal that is heated electrically.—*S. Renshaw* (Ohio State).

1278. Margonau, H. The uncertainty principle and free will. *Science*, 1931, 74, 596.—The author endeavors to clarify the relation between the quantum-mechanical uncertainty principle and free will. It is pointed out that there is no intelligible connection between the two.—*O. C. Neet* (Clark).

1279. Masson-Oursel, P. L'autorité de la science. (The authority of science.) *Psychol. et vie*, 1931, 5, 262-263.—*Math. H. Piéron* (Sorbonne).

1280. Mukerji, A. C. The problem of self-consciousness. *Rev. Phil. & Rel. (India)*, 1931, 2, 111-125.—A restatement of the assumptions underlying the attempts made by psychologists to expound a theory of knowledge.—*O. L. Harvey* (Cambridge, Mass.).

1281. Stroud, J. B. Apparatus for measuring muscular tensions. *J. Exper. Psychol.*, 1931, 14, 184-185.—A pneumatic stylus for use in maze learning experiments where it is desired to measure both the pressure of the fingers and the downward pressure upon the maze.—*S. Renshaw* (Ohio State).

1282. Treves, M. Giustizia biologica e sue violazioni. (Biological justice and its violation.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 216-225.—*A. Angyal* (Turin).

1283. Yerkes, R. M. Yale laboratories of comparative psychobiology. *Comp. Psychol. Monog.*, 1932, 8. Pp. 33.—A description, with floor plans, photographs, etc., of the New Haven and Florida laboratories for anthropoid research. There is an historical discussion, a discussion of the principles of organization and operation of the laboratories, and a bibliography of publications.—*N. L. Munn* (Pittsburgh).

SENSATION AND PERCEPTION

1284. Baniasoni, F., & Castellani, M. I giudizi comparativi fra numero e massa nei fanciulli normali e anormali psichici. (The comparative judgments between number and mass in normal and mentally abnormal children.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 68-71.—*A. Angyal* (Turin).

1285. Busquet, H. Modifications provoquées sur la pression artérielle chez l'homme, par une douleur violente et brève. (Modifications affecting the arterial pressure in man caused by brief, violent pain.) *C. r. Soc. biol.*, 1931, 108, 712-714.—The author had occasion to make numerous experiments relative to the influence of pain on arterial pressure in man. He observed 60 subjects who were undergoing whitlow incisions or tooth extraction without anesthetics. In 33 subjects the arterial pressure was raised during the operation, in 21 there was no change, while in 6 the pressure was slightly diminished. The absence of increase in pressure seemed to be due to the fact that a cardiac retardation, produced by reflex stimulation of the pneumogastric, counterbalanced the effect of the vaso-constrictor reflex. In the other cases the vaso-constrictor action existed by itself or was predominant, a condition which brought about an increase in pressure. To summarize, the tensional reaction is the algebraic sum of two factors, each of which has a different value according to the subject.—*Math. H. Piéron* (Sorbonne).

1286. Celle, J., & de Cooman, E. Recherches sur l'électrorétinogramme. (Researches on the electroretinogram.) *C. r. Soc. biol.*, 1931, 108, 273-276.—*Math. H. Piéron* (Sorbonne).

1287. Cloud, J. H. On the intensity of sound. *Proc. Okla. Acad. Sci.*, 1924, 4, (*Univ. Okla. Bull.*, N. S. No. 322), 125-128.—The apparatus for this experiment was a Rayleigh disc suspended in a compound resonator or Webster phonometer. The disc was 15 mm. in diameter and 0.1 mm. in thickness; it weighed 12 mg. The resonator was made of two metal cylindrical chambers 12.5 cm. and 3.2 cm. long respectively and each 4.8 cm. in diameter, connected by a smaller tube 2.8 cm. in diameter and 8 cm. long. The outer end of the small chamber was closed by a piece of glass, while that of the larger chamber could be closed by a variable iris diaphragm. The throat, within which the disc was suspended, had two openings, one at the top to admit the suspension and one at the side, covered with glass, to allow light reflected

from the silver-treated disc to pass to a screen on which was drawn a centimeter scale, presumably rectilinear. Various suspensions were tried, but it was found that fine quartz threads (diam. 0.0022 cm.) gave the most dependable zero reading, though less sensitive than a single thread of unspun silk fiber. Several sources of sound were used, but the most satisfactory was an organ pipe blown by air under constant pressure. Two findings are of interest here: (1) In a small room (12' x 12' x 16') various positions of the pipe (resonator fixed) could be found at which no effect was produced upon the resonator. At some positions, however, when the fundamental failed to cause a deflection an upper partial might still be effective. These silent positions were probably caused by setting up a node at the resonator, due to reflections from the plastered walls. This would indicate that both intensity and quality of sound heard in a small room depend upon the position of both hearer and sound source. (2) In a large room (30' x 50') and in the open where there were no reflecting surfaces, such as trees, houses or mountain sides, the inverse square law did not hold.—*M. O. Wilson* (Oklahoma).

1288. Cuccia, A. Ricerche sul comportamento dell'acutezza visiva indiretta nelle affezioni del nervo ottico. (Research on the behavior of peripheral visual discrimination with the affection of the optic nerve.) *Ann. ottalmol. e clin. ocul.*, 1931, 2, 130-154.—The author had previously determined the physiological value of the visual discrimination of the peripheral retina by means of Lo Cascio's research method, which permits very exact measurement. In this work, he sought to determine by the same method what deviations from the normal the indirect visual discrimination suffered by the affection of the optic nerve. After testing 16 subjects with various forms of neuritis, he discovered what part of the peripheral retina was damaged most in function by the inflammatory and degenerative processes.—*A. Angyal* (Turin).

1289. Dolansky, V. Do the blind "sense" obstacles? . . . *And There Was Light*, 1931, 1, 8-12.—The blind agree that when approaching an obstacle they experience a slight sensation as if being grazed on the face. Theories to explain this phenomenon take the point of view that the stimulus is exteroceptive, either acoustic, or thermic, or in the nature of pressure of air. Wearing a cardboard mask, and with his ears stuffed with cotton wool, the writer eliminated these influences, yet he and his subjects still experienced the drawing near of the object. The writer therefore attributes the sensation to "the certitude of being threatened" with a blow from some object, the hair on the face rising as in fear.—*O. L. Harvey* (Cambridge, Mass.).

1290. Fleischer, E. Experimentelle Grundlage des binokularen Farbensehens. (The experimental foundation of binocular color vision.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 228, 724-730.—The three-component theory is taken for the basis of the explanation of retinal rivalry. By an experiment with

grays lighter or darker than their backgrounds, it was found that retinal rivalry occurs only when the two colors to be fused are of unequal brightness as compared with the background, i.e., one lighter than the background and the other darker than the background.—*D. S. Oberlin* (Bryn Mawr).

1291. Gebhardt, M. Studien zur Erforschung des absoluten Gehörs im Kindesalter. (Studies of absolute hearing in childhood.) *Arch. f. d. ges. Psychol.*, 1931, 82, 403-429.—In an earlier paper the author has reported a series of studies, extending over the age period 3-5½ years, on the absolute pitch sense of the child A.R. The present paper summarizes similar studies made during the age period 5½-7 years. Tests indicate that the ability shown during the earlier period is still present and that the child also manifests a highly accurate sense of musical interval without formal training of any sort in the latter.—*R. H. Waters* (Arkansas).

1292. Haby, G. Etude sur l'interprétation visuelle des images tactiles. (A study of visual interpretation of tactile images.) *Rev. phil.*, 1931, 31, 395-477.—The author studied the correlation between tactile and visual images, the visual interpretation of tactile images, and the method by which a subject goes from touch to design and vice versa. The experiments were performed on blind and normal subjects. Results showed that the visual reproduction of tactile images is a complicated phenomenon into which enter previous information and interpretation. The imagery of the blind was less rich than that of the normal subjects, and they made use particularly of tactile and motor images. The reproductions made by the two groups showed no marked differences with the exception that those made by the blind were usually larger than the models while those made by the others were usually smaller. The author concludes that the tactile sensitivity of the blind does not appear to be of a quality really superior to that of subjects who can see.—*Math. H. Piéron* (Sorbonne).

1293. Helson, H. Studies in the theory of perception. I. The clearness-context theory. *Psychol. Rev.*, 1932, 39, 44-72.—The clearness-context theory as formulated by Titchener explains perception in terms of (1) the context or imaginal-fringe theory of meaning, and (2) the sensory-clearness theory of attention. This theory involves certain assumptions which are challenged by the author, such as that perceptions are capable of an analysis which yields fixed elements which are merely added together, and that in addition they contain meanings which may vary independently of the elements. The theory also fails to square with observed facts when applied to nine different specific perceptual situations. Also, the theory is internally inconsistent. The author is convinced that no reinterpretation can make it acceptable, but that our approach to the problem of perception must be made from a new angle.—*A. G. Bille* (Chicago).

1294. Holt-Hansen, K. Studien über Schalllokalisation. (Studies on the localization of sound.)

Zsch. f. Psychol., 1931, 120, 209-216.—When watches are placed directly in front and at the side of blindfolded subjects and the instruction is given to place a third watch so that the distance between the two is bisected, the third watch will be placed at an angle of 30° from the nasal direction and 60° from the aural direction. If, however, the front and side directions are only imagined, and one watch alone is used which is to be placed half way between these two directions, the allocation is approximately correct. Or if only one of the directions is indicated by a watch, the 90° angle is correctly bisected. On the other hand, if the two watches are in the nasal and aural directions, bisecting the angle by simply pointing again gives the 30°-60° relationship. Again, if the task is to place the third watch three times as near the aural as the nasal direction, it is placed at about 45°. Such experiments indicate that the same physical angles may under certain conditions be heard as very different angles.—*M. Lee* (Chicago, Ill.).

1295. Jacques, P., & Orimand, R. *Etat actuel de la physiologie de l'audition.* (The present status of the physiology of hearing.) *Ann. mal. oreille, larynx et pharynx*, 1931, 110-175.—The article is a critical study divided into two parts. In the first part the authors discuss the data which are indispensable to a comprehension of the theories of hearing explained in the second part. A bibliography of 210 titles concludes the study.—*Math. H. Piéron* (Sorbonne).

1296. Kiesow, F. *La percezione della forma.* (Form perception.) *Atti VII. convegno psicol. sper. e psicotech.*, Torino, 1929. Pp. 41-46.—*A. Angyal* (Turin).

1297. Kiesow, F. *Sulla mescolanza del nero col giallo.* (On the mixing of black and yellow.) *Atti VII. convegno psicol. sper. e psicotech.*, Torino, 1929. Pp. 46.—*A. Angyal* (Turin).

1298. Koffka, K., & Harrower, M. R. *Beiträge zur Psychologie der Gestalt XXII.* (Contributions to Gestalt psychology XXII.) *Colour and organization, Part II. Psychol. Forsch.*, 1931, 15, 194-274.—This is the concluding section of the authors' investigation of the Liebmman effect (see V: 4680). Although some results are equivocal, the following conclusions may be drawn: (1) When a figure with a surrounding contour is compared with one without a contour, at the incidence of the Liebmman effect the contoured figure loses in purity and saturation and gains in organization. The contoured figure appears darker. (2) The apparent saturation of a colored figure on equivalent grounds of different appearance depends on the relation of the specific brightness between figure and ground. (3) Besides those factors investigated by Liebmman, which were retested and found correct in this investigation, the following regularities were found: the Liebmman effect is more pronounced with weaker than with stronger intensities, with film colors than with surface colors (Katz' distinction), on a black surface than on a white one, and with soft colors

(short wave) than with hard colors (long wave).

(4) The differences between hard and soft colors are important for visual acuity. Hard colors, *ceteris paribus*, increase visual acuity, soft colors decrease it. (5) The brightness of a figure defined by the Liebmman effect depends on organization. The most important general conclusion that the authors draw from the whole investigation is: "the psycho-physical processes, occurring in acts of perception, instead of being separable into color, place, and form processes . . . are processes of field organization; color, place, and form being three interdependent aspects of this general event."—*J. F. Brown* (Colorado).

1299. Kravkov, S. W. *Die Unterschiedsempfindlichkeit des Netzhautperipherie beim Dämmerungssehen.* (The discriminatory power of the periphery of the retina in twilight vision.) *Graefes Arch. f. Ophth.*, 1931, 127, 86-99.—The 7, 11.5, and 26 nasal and temporal points on the retina, situated on the fovea centralis, were examined. These points showed a distinctly lower discriminatory ability for twilight vision than for daylight vision. The thresholds of discrimination $\Delta J/J$ gave values of 0.12-4.87. The discriminatory ability of twilight vision is lowered with the increasing instability of the stimulated retinal point. The magnitude of the discriminatory threshold depends on the intensity of the stimulus. The threshold becomes larger with decrease rather than with increase of stimulus. This fact is explained, following Fechner and Helmholtz, by the effect of retinal light. In contrast to the discriminatory ability, the absolute sensitivity to light of twilight vision shows a decided maximal value of 11.5. The discriminatory power of twilight vision increases with the dark adaptation of the eye.—*W. Nolte* (Berlin).

1300. Londhe, D. G. *The problem of sensa.* *Rev. Phil. & Rel. (India)*, 1931, 2, 126-136.—Broad's "sensus theory" fails to yield a satisfactory explanation of the "concrete, particular existence" sought to be attributed to sensa. If the claim of dream-percepta to be regarded as sensa be granted, we can state definitely that some sensa are decidedly mental.—*O. L. Harvey* (Cambridge, Mass.).

1301. Luntowski, G. *Typische Einstellungen bei Wahrnehmungsleistungen.* (Typical attitudes in observing.) *Zsch. f. Psychol.*, 1931, 120, 126-188.—According to W. Peters two attitudes are possible to observers in an experiment, the *leptisch* or passive and the *ktetisch* or active, the latter being induced by more difficult tasks and tending to give better results. He notes that some observers naturally assume one attitude and others the other. The present experiments, undertaken to test these statements, in general substantiate them. The production method was used, the task being to divide a given linear distance into three equal parts by shifting beads on a string. The subjects were young adults of both sexes. In the first experiment the ten observers were given no directions as to the attitude to be assumed or methods used, and following

the task were questioned closely as to how they had performed it. From these statements it was found that in 82 experiments 60 were carried out wholly actively and eleven wholly passively. Seven of the subjects observed actively four times as frequently as passively and the remaining three were more often leptic than ktetic. The active group compared to the other showed more generalized body movement and eye movement, corrected the position of the beads more often, and took longer for the task. They had a more restricted attention span, tended to break the space into sections successively, and were rarely conscious of the whole. They used only one hand, while the passive group moved the beads simultaneously with both hands. The errors were smaller in the ktetic group, the difference being more conspicuous the larger the space to be divided. A second experiment was then undertaken with four predominately ktetic and three leptic observers. An equal number of instructions favoring active and passive attitudes were given in variable order, and statements by the subjects again taken following the task. The ktetic directions were followed successfully in almost all cases, but leptic directions were completely followed every time by only one subject, 70% of the time by five subjects and never by the remaining subject. In regard to time, errors, and other characteristics the same differences were found between the two methods as in the first experiment. It is concluded that while subjects tend strongly to one attitude, the other, especially the ktetic, can usually be assumed. The assumption of the passive attitude and consciousness of the whole was easier, under the conditions of this experiment, if the space was small.—*M. Lee* (Chicago, Ill.).

1302. Menninger-Lerchenhal, E. Anophthalmus congenitus-Versehen der Schwangeren. (Congenital anophthalmia after fright during pregnancy.) *Graefes Arch. f. Ophth.*, 1931, 127, 163-176.—The following facts are the basis for this work. An unmarried woman about to bear her first child lived until the seventh month of her pregnancy in the same household with her older sister, who had many children. This older sister, as the result of an eye-disease in her seventh year, had had her left eye removed. The younger sister, who in the meantime had married, gave birth to a boy who, though otherwise healthy, had no left eye. The popular belief, which has become widely circulated in the neighborhood because of this event, maintains that the girl became frightened during her pregnancy by her one-eyed sister. The author demonstrates that the foregoing facts can be satisfactorily explained in a scientifically causal way as a hereditary defect in both the aunt (the older sister) and the one-eyed boy.—*W. Nolte* (Berlin).

1303. Metzger, W. Gestalt und Kontrast. (Gestalt and contrast.) *Psychol. Forsch.*, 1931, 14, 374-386.—Metzger reviews papers of Mikesell and Bentley and of Jenkins (both in *J. Exp. Psychol.*, 1930, 13) which experimentally criticized Benary's experiments on the influence of Gestalt factors on

contrast. Metzger finds the experimental results completely confirm those of Benary. The methodological and theoretical criticisms of Benary which Mikesell and Bentley and Jenkins made are based on misinterpretations of Gestalt theory. When these misinterpretations are corrected, the results show complete agreement between the American and German investigations. This state of affairs seems hopeful, pointing out that "we are on the way from psychologies to psychology."—*J. F. Brown* (Colorado).

1304. Meutré, F. Sensation et perception. *Scientia*, 1931, 50, 289-296.—The author traces the development of perception with various sensorial foundations, and places the German Gestalt researches in relation to classical perception.—*R. G. Sherwood* (Redmond, Washington).

1305. Pezard, A. Influence du sexe, de la maturité et de la castration sur la rétine des oiseaux. Variation de la proportion des boules colorées. (The influence of sex, maturity, and castration on the retina of birds. Variations in the proportion of colored globules.) *C. r. Soc. biol.*, 1931, 108, 722-724.—The retina of birds contains colored or uncolored globules in the inner section of certain cones. The distribution of these colored globules varies specifically in diurnal birds, being originally uncolored in the young and becoming gradually colored later. Moreover, the proportion of the red globules to the yellow is increased in the adult. The author has observed that castration influences this proportion and that the condition of the castrates approaches that of the young birds. This retinal modification in castrates seems to explain the passive attitude of capons in the presence of cocks, an attitude which might be explained by a modification in their method of perception.—*Math. H. Piéron* (Sorbonne).

1306. Pikler, J. Das Augenhüllenlicht als Mass der Farben. (The enclosed light of the eye as a measure of color.) *Zsch. f. Psychol.*, 1931, 120, 189-208.—If one looks at a white screen on a table through a 4-cm. square of wire with the sole source of light at the left, and then moves the wire frame to the left and right, the brightness of the square enclosed decreases in the former case and increases in the latter, associated with a color change. The reverse is true if a square of paper is used instead of the empty wire square, and no color change occurs. These phenomena, called color inconstancy of light and color constancy of objects, have never been adequately described and explained in psychology. The results of twelve variations on the above experiment indicate that the judgment of brightness and of color is the result of a comparison between the enclosed light of the eye and the light received on the pupil at the moment. Whatever is physically changed by general lighting of the room or differential lighting of the two eyes, this diffuse light within the eye produces an effect upon the impression of light as well as color in any specific visual event, as would be expected from this theory. A brief review is given of Hering and Katz's theory of color constancy, and

an experiment by Gell is discussed.—*M. Lee* (Chicago, Ill.).

1307. Polack, —. Quelles sont les couleurs dont la confusion est commune à tous les daltoniens? (What colors are confused by all color-blind persons?) *C. r. Acad. sci.*, 1931, 193, 878-880.—Daltonism is generally regarded as being marked especially by a confusion of red and green. The use of the method of confusion colors already championed by Seebeck shows that red and green can often be distinguished by color-blind persons who, on the other hand, always confuse blue, violet, purple, and blue-green. In order to facilitate examinations, the author compiled a test for sorting colors (red, orange, yellow, green-yellow, green, green-blue, blue-green, blue, violet, purple, gray, and brown) with shades of decreasing saturation for each color. A preliminary group for rapid examination contained the colors habitually confused.—*Math. H. Piéron* (Sorbonne).

1308. Ponzo, M. Sulla percezione del peso. (Concerning weight perception.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 52-53.—*A. Angyal* (Turin).

1309. Way, E. F. Entoptic colors. *Science*, 1932, 75, 81.—The author reports an observation of entoptic colors produced at will by the use of a movie projector running without film at a frequency of about 10 to 12 per second. The phenomenon seems to be a mixture of flashes of various colors. Illumination consists of the regular incandescent lamp.—*C. C. Neet* (Clark).

1310. Whitmer, C. A. Peripheral form and pattern discrimination under dark adaptation. *Univ. Pitt. Bull.*, 1931, 7, 238-244.—By means of a new type of perimeter the following forms, each of the same area and having a brightness of 244 millilamberts, were exposed, one to each eye, in various paired combinations arranged according to change: triangle, diamond, square, rectangle, circle, and hexagon. The exposure time was in each case constant, being .3 sec. The accuracy of discrimination and the field of extension of the forms followed the order given above. There was an approximately constant decrease in form vision from the foveal region to the extreme periphery of the retina. The triangle could be discriminated with greater than chance accuracy over practically the whole extent of the visual field. The accuracy of discrimination for all forms combined was greater on the horizontal meridian and in the lower half of the field than in the upper half. No consistent variation in response arose when the stimuli passed from the field of vision for both eyes to the field of vision for one eye. Details concerning the types of error in various parts of the field are reported. In the second part of the investigation striped patterns ranging in brightness from .34 to 858 ml. were presented, one to each eye, the subject being required to indicate whether the directions of the striae were different or the same. There was some indication that brightnesses above

.5 ml., when used as background surfaces for black striae, tend to obscure details in patterns viewed in the extreme periphery of the dark-adapted eye.—*N. L. Munn* (Pittsburgh).

1311. Williams, R. J. "Taste deficiency" for creatine. *Science*, 1931, 74, 597-598.—It is found that creatine, a muscle constituent, varies from tasteless to bitter for different individuals. The problem is associated with the general one of individual metabolic idiosyncrasies and requires further study.—*C. C. Neet* (Clark).

1312. Young, P. T. The rôle of head movements in auditory localization. *J. Exper. Psychol.*, 1931, 14, 95-124.—A series of studies intended as a check on the previous work by the author on the acoustical transposition of the ears. Four questions are attacked: (1) the lateral character of the phantom tone; (2) binaural direction; (3) monaural localization, and (4) the binaural estimation of distance. (1) Two hard rubber ear trumpets were adjusted in a frame and connected to ear pieces by means of rubber tubing. Clicks and a 400-cycle tone were used as stimuli. The axis of the trumpets could be placed in any position in space with respect to the S. No relation was found between trumpet axis and aural axis. The phantom was always judged correctly as to localization, i.e., at the trumpet in resonance. 2. The phantom was localized upon an arc in the rear of the head outside the field of vision; the angle with respect to the vertical varies with the individual and is independent of the binaural stimulus pattern. There are well defined individual differences in the restriction of the phantom's course and in its displacement to R or L. No stimulus condition could be found which would give a localization in front of the S or below the aural axis. Problems of binaural direction are *physically* bidimensional and may be described on a single plane determined by the two trumpets at the source. (3) When head movements are rendered ineffective to change the monaural stimulus S can discriminate between R and L, but objectively accurate estimations of direction apart from mere R and L are impossible. Individuals differ markedly in monaural localizations. (4) Distance estimation varies with individuals and with practice and depends somewhat on the energy relations of the binaural stimulus. Failure to control head movements, even in small degree, has been an instrumental defect of many previous studies, since "a slight movement of a degree or so is sufficient to give a clue to the direction of the source." When head movements are effective in changing the binaural stimulus pattern the auditory field is unrestricted and coextensive with visual-tactual space, and objectively reliable localizations are possible in three dimensions. When head movements are ineffective the auditory field is restricted to a single arc outside the visual field and objective accuracy is limited to two dimensions.—*S. Renshaw* (Ohio State).

[See also abstracts 1264, 1265, 1535, 1536, 1537, 1538, 1539, 1540.]

FEELING AND EMOTION

1313. Britan, H. H. *The affective consciousness*. New York: Macmillan, 1931. Pp. ix + 391. \$3.00. —The thesis of this text is that consciousness, and especially the affective consciousness, has a part to play in determining man's manifold activities. Thus it supplements such viewpoints as that of behaviorism, which, while valid, are inadequate. The application of the principle is traced through simple states of sensory pain and pleasure to the emotional components of esthetic, logical and ethical experiences, showing them to be inherently the same. The emotions are modifications of the affective consciousness, designed to meet situations for which simple pleasantness and unpleasantness are inadequate. Each emotion impels to activity. One of the first laws of the affective life is that an immediate pleasure is more impellent than a remote one. Knowledge and emotion are complementary; neither alone is a true guide to conduct. The function of the affective consciousness, then, is "that it serves as a means of raising the cognitive consciousness to a working potential." Three chief forms of emotional stimulation are: objects and objective situations; perception of emotion in others (social stimulation); and ideas. The ethical emotion is a highly intellectual form of the affective life, and is characterized by a feeling of obligation, the transition from objective to subjective sanctions, and the feeling of its basic importance. All religious observances are evidences of the impulsion of the religious emotion. Emotional attitudes are formed around objects with which the individual experiences repeatedly some pronounced affective reaction. Each chapter of the book is followed by references and topics for class discussion.—*M. P. Montgomery* (Faribault, Minn.).

1314. Buscaino, V. M. *Biologia della vita emotiva*. (Biological aspects of the emotional life.) Bologna: Zanichelli.—From a close study based upon a long series of experiments on the somatic manifestations of emotions the author formulates three general rules: (1) objectively considered, three variables enter into an emotion: innervation of striated muscles, autonomic innervation, and the endocrine system; (2) emotions differ from one another according to the relative preponderance of their variables; and (3) some groups of cerebral cells become sensitized to chemical substances of endocrine origin in such a manner that a given emotional tone is associated with a particular variation of endocrine function. The author has shown experimentally that somatic manifestations of emotions cannot be regarded as cortical in origin. Nervous and mental symptoms of hysteria and the traumatic neuroses are the consequences of non-psychical, sub-cortical, vegetative endocrine processes, which dominate the mental make-up of the individual. On the basis of this biological conception of the emotions mental disorders are classified into dysphrenia, dys-thymia and schizophrenia; and the pathogenesis of dementia praecox is explained by an organic lesion of the vegetative-affective centers and the cortical

and sub-cortical association tracts.—*L. M. Hatfield* (Maine).

1315. Codet, H. *Les émotifs et les impressionnables, leur psychophysiologie*. (The emotional and the impressionable; their psychophysiologie.) In *L'Evolution Psychiatrique*. Paris: Maloine, 1931. Pp. 9-22.—A methodical analysis of the emotional states founded upon clinical and organic psychiatry, their biology and their psychology. The author distinguishes two great emotional types: one presents immediate external reactions, predominantly motor and quickly appeased; this is the sympathicotonic emotional; the other inhibits delayed repercussions, more mental and lasting longer; this is the vagotonic impressionable.—*Math. H. Piéron* (Sorbonne).

1316. Combe, L. *L'émotion facteur de terrain. Sa valeur pathogène et curative*. (Emotion as a factor of the terrain. Its pathogenic and curative value.) *Bull. méd.*, 45, 619-625.—Emotion, says the author, is difficult to define in current terms. It is a moral movement which disturbs and agitates. Everything occurs as if there were only one emotion, which can excite or depress according to its causes, but which always brings about fatigue. Either through its intensity or through repetition, emotion seems to react on the bodily disposition in one of two ways: abruptly, after the manner of a colloidal shock, or slowly, transforming the primary terrain in such a way that it is rendered vulnerable to actions of a physical, chemical, or microbiological order against which it seemed resistant. Thus, emotion can be at one time an agent of shock and at another a terrain factor.—*Math. H. Piéron* (Sorbonne).

1317. Grosland, H. R., & Beck, L. F. *Objective measurements of emotion. A symposium of three experimental papers*. *Univ. Ore. Publ.*, 1931, 1, No. 3, 133-202.—In the first paper, by Beck, *The Relative Efficiency of Visual and Acoustical Presentations of Stimulus-Words in the Association-Reaction Test*, the author investigates this efficiency as it is reflected in reaction-times, and, correlatively, the effect of controlling the factor of the presence of the experimenter by presenting the stimulus-words on a phonograph. Since the significant words were so to all the 55 men students, sophomores in college, all the subjects were considered "guilty." Thus the problem narrowed down to an investigation of the best method to reveal the "guilt" of the subject, i.e., that which "brings about the greatest comparative prolongation of the reaction-times to the significant and to the post-significant stimuli." The list of 100 word-stimuli contained 80 irrelevant nouns, of which 60 were non-significant and 20 were post-significant, immediately following the 20 significant nouns. The three lists of words were equated for the three methods, the visual, employing the tachistoscope, the auditory, from phonograph discs, and the oral, in which the experimenter used a lip-key. The results showed the shortest reaction-times to all three types of word stimuli with the visual method and the longest with the oral. Correlations among the non-sig-

nificant, significant and post-significant time-data of any one series average $.79 \pm .03$. Correlations show but small differences among the significant words of the three methods of presentation, with increasing differences for the post-significant stimuli and the greatest for the non-significant words. This is interpreted as due to an attitude of wariness aroused by the significant words. The degree of the effect increases with each of the three trials. The reaction-times to the significant and to the post-significant words have the largest comparative prolongation in the oral method. All three methods show the comparative prolongation of the reaction-time to a significant stimulus with nearly equal effectiveness. The oral method reveals most efficiently the comparative prolongation of the reaction-time to a post-significant stimulus. The second paper, by Crosland, is *The Relative Efficacy of Visual and Two Auditory Methods of Presenting the Word-Stimuli in an Experiment which Combines the Association Reaction-Time Technique with the Psychogalvanic Technique*. This investigation was synchronized with that described above, against which it was checked. The emotions evoked were evaluated in terms of psychogalvanic readings (PGR), both absolute (maximum excursion of the milliamperage hand), and relative (difference between starting point and final termination of the hand). The latter were the more useful, as they differentiated better between the three types of stimuli. In each series there were marked differences between the three types of stimuli, the significant stimuli leading in size of the relative PGR reaction. The largest difference occurred in the auditory series, next in the oral. Inter-series correlations show the greatest percentage of commonality between the significant stimuli, next between the post-significant, the irrelevant being last. The relative PGR records were very stable and consistent and the series resembled each other greatly. The auditory series exhibited the greatest commonality between its three types of stimuli, followed closely by the visual. The highest percentage of commonality existed between the post-critical and irrelevant stimuli, the least between the significant and the post-critical words. The auditory series is ruled out because of mechanical difficulties with the phonograph, and there is but little choice between the oral and visual methods. The third paper, by Crosland, is *The Relation (Correlation) Obtaining Between Reaction-Time Data and Psychogalvanic Data in a Combination Experiment Comprising the Word-Association, Reaction-Time and Psychogalvanic Techniques*. The difference between the median PGR deflection and the mean deflection, which is largely free from intellectual influences, would apparently be a more reliable measure of emotion than a similar difference in the reaction-time data, which are largely at the mercy of intellectual factors. However, statistical reliability is high and nearly equal for reaction-time and relative psychogalvanic deflections. Individual differences are much greater with the latter measure, though a subject's variation from

his own mean is higher in reaction-time data. Contrary to Hathaway, there is practically no correlation between reaction-time and the relative PGR deflections. Nor is there correlation between the latter and intelligence. Tendencies towards neuroticism as shown by the Thurstone-Thurstone test have low negative correlations with sizes of relative PGR excursions. A detailed and extensive bibliography is appended.—*C. P. Armstrong* (N. Y. C. Children's Court).

1318. Goodenough, F. L., & Tinker, M. A. The relative potency of facial expression and verbal description of stimulus in the judgment of emotion. *J. Comp. Psychol.*, 1931, 12, 365-370.—Photographs representing fear, anger, disgust, and sympathy were paired with each of a series of verbal descriptions of situations which might be expected to elicit the emotional expressions. A multiple choice technique leaving provision for voluntary reports was used. In 4 out of 16 presentations the description corresponded with the photograph, in the others photograph and situation varied. 321 college students acted as subjects. Identification in terms of the situation was somewhat more frequent than identification on the basis of photographs. 89% of judgments were accurate when both photograph and situation corresponded. About 72% of judgments were correct for a group which made its judgments upon the basis of photographs alone. Situations alone gave an accuracy of 99%. There is a discussion of possible reasons for the results.—*N. L. Munn* (Pittsburgh).

ATTENTION, MEMORY AND THOUGHT

1319. Cornelissen, C. Enfants et adultes devant la vérité. (Children and adults in relation to the truth.) *Psychol. et vie*, 1931, 5, 237-238.—*Math. H. Piéron* (Sorbonne).

1320. Dugas, L. La valeur pratique de la vérité. (The practical value of truth.) *Psychol. et vie*, 1931, 5, 235-237.—*Math. H. Piéron* (Sorbonne).

1321. Leroux, E. Les deux écueils de l'intelligence. (The two dangers of intelligence.) *Psychol. et vie*, 1931, 5, 244-245.—Intelligence is an admirable instrument, of which mediocre use is often made because of two reasons, which are apparently in opposition. The first is that our intelligence is too often the slave of our habits and of our emotions, and the second is that, becoming only critical, it can be estranged from the self. Excess of subjectivity or excess of objectivity are two expressions of the same vice, mental inertia, the instinctive repugnance toward the unknown and often toward sudden changes which the march toward truth demands.—*Math. H. Piéron* (Sorbonne).

1322. McGeech, G. O. Whole-part problem. *Psychol. Bull.*, 1931, 28, 713-739.—A critical analysis is made of thirty investigations, including those on serial nonsense syllables, on paired associates, on poetry, on prose, and on acts of skill; with the net yield that while the data give a somewhat consistent

showing in favor of the whole method with the abler, practical subjects, there is really no inherently superior method. The efficiency of any method turns out on analysis to be a function of many interacting factors: the age, etc., of the subjects; the character of the material; the practice periods; the form of the part method used; the method of measuring the efficiency both of learning and of retention; the length of interval.—*J. F. Dashiell* (North Carolina).

1323. Musatti, C. L. *Ricerche sperimentali sulle leggi dell'apprendimento valutativo*. (Experimental investigations on the laws of evaluative learning.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 68-71.—*A. Angyal* (Turin).

1324. Musatti, C. L. *Elementi di psicologia della testimonianza*. (Elements of the psychology of testimony.) Padua: Cedam, 1931. Pp. 249. Lire 32.—The eight chapters of this work have the following headings: the psychology of verbal testimony; factors in the perception of errors of testimony; errors of comparison and errors of judgment; analysis of a concrete situation of immediate testimony; the mnemonic deformation; spontaneous testimony, questioning, confession; detecting the facts; the method for the detection of truth-telling and lying.—*A. Angyal* (Turin).

1325. Sageret, J. *L'effort vers la vérité*. (The striving toward truth.) *Psychol. et vis*, 1931, 5, 238-239.—*Math. H. Piéron* (Sorbonne).

1326. Schumacher, W. *Die eidetische Fähigkeit bei Kindern und Jugendlichen*. (Eidetic imagery in children and adolescents.) *Hilfsschule*, 1931, 6, 324-350.—The author's own investigations and a critical inspection of the work published until now in Germany are the basis for his arguments. He holds that the theory advocated by the Marburg school (E. R. Jaensch) has not yet been proven. This theory assumes that the perception of the image, out of which the perception, the after-image and the presentation of the stimulus first develops, is still an undifferentiated unity. The so-called "unity phase" is found in the beginning of child development. The author maintains, in agreement with other investigators, that the acceptance by the Marburg school of the existence of deviations from the Emmertsen law in an individual of latent eidetic aptitude is not justified. In his arguments over the educational meaning of eidetic ability, the author points out that valuable results were gained for educational practice through the method of investigation of E. R. Jaensch and Kroh.—*W. Nolte* (Berlin).

1327. Second, J. *Affirmation et vérité*. (Affirmation and truth.) *Psychol. et vis*, 1931, 5, 234-244.—*Math. H. Piéron* (Sorbonne).

[See also abstract 1493.]

NERVOUS SYSTEM

1328. Austregesilo, A. *Rigidez decerebrada en clinica*. (Decerebrate rigidity in the clinic.) *Rev. oto-neuro-oftal.*, 1931, 6, 483-488.—One of the most important problems of contemporary neurology is

that of decerebrate rigidity in man. The condition is produced following various lesions in the mid-brain, pons, olivary nuclei and even the cerebellum. The author indicates the characteristic manifestations produced in the subject. Among those cited are plasticity and tonic reflexes. The clinical picture is not as complete in man as in animals. The condition appears in a fragmentary manner, or it may be accompanied by symptoms of another nature which renders the establishment of a diagnosis difficult. Concerning the localization of decerebrate rigidity centers, no definite agreement among authors is found. The center involved may be in either the red nucleus, motor nuclei or Deiters' nuclei. The possibility is admitted that catatonic and hysterical states might possibly give rise to decerebrate rigidity. The work of O. de Almeida is cited concerning the influence of cutaneous excitations on the production of muscle tonus. The author stresses the importance of these excitations in considering decerebrate rigidity due to the fact that "the tonus of flexion in mammals is a cutaneous reflex."—*C. C. Neel* (Clark).

1329. Brücke, E., & Krannich, E. *Über den Einfluss des Sympathicus auf die Sensibilität*. (Concerning the influence of the sympathetic nervous system on sensitivity.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 228, 222-267.—From the experiment, in which the sympathetic system of a frog was stimulated and the chronaxy recorded, no conclusion was drawn except that the shortened chronaxy noticed must depend on a sympathetic influence on the peripheral system, since stimulation of the sympathetic has no effect on the rheobase.—*D. S. Oberlin* (Bryn Mawr).

1330. Burrige, W. *The mechanism of personality*. *J. Ment. Sci.*, 1931, 77, 708-722.—An advance in muscle science indicates the restating or discarding of some of the present special hypotheses of mental science. Duality of muscle structure points to two anatomically and physiologically distinct parts in every organ. In mind there should be a responding part, thoughts (the psychic part), and an excitable part in immediate contact with the environment of the whole organ and determining the activity of the responding part (the neural part). The author found in muscles two types of augmentation of activity, the rapid and the hysterical or lagging-behind change mediated by aggregation changes in a colloidal system, called perseveration by the psychologist, after-images by the ophthalmologist. They are properties of such other colloidal systems as are the nerve-trunk and nerve-cell, are not peculiar to the reflex arc alone, and emphatically do not belong to the synapse, whose only duty is passive conduction. Since thoughts resemble alloys, by deduction the mind may be divided, spectrum-like, into a central, cognoscible region where thoughts are what we think they should be and on either side an infra-cognoscible and an ultra-cognoscible region. The first is subdivided into the para-critical or emotional region, and the eu-critical, a region of sound, solid fact. There is a dimly-lighted or hypophasic

region between the eu-critical and the infra-cognoscible region, and possibly a paranoiac or ultra-critical region between the para-critical proper and the ultra-cognoscible. The mind is a storehouse of memory-traces, (neurograms), and a manufactory of a judging or conscious-making factor. On this basis the mechanism of personality is described in detail.—*C. P. Armstrong* (N. Y. C. Children's Court).

1331. Kappers, C. U. A. The development of the cortex and the functions of its layers. *J. Ment. Sci.*, 1931, 77, 692-700.—The primitive arrangement of the cortex in the palaeo- and archipallium has two cell layers: the lamina granularis, mainly receptive-correlative in function, and the deep pyramids, corticofugal and commissural efferent in function. This lamination obtains in principle in the neocortex, except that the receptive-correlative granular layer has given rise to supra-granular cells, which again are subdivided into two sub-laminae; the upper cells remain smaller and the cells nearer the granularis become pyramidal in form. Kuhlenbeck and Paul independently offer a neurobiotactic explanation of the development of the supra-granular layer. As in the palaeocortex and in the archicortex the afferent cortical fibers carrying corticopetal impulses run in the zonal layer (shown fundamentally by the primary and secondary olfactory tracts), so in the neocortex, callosum fibers and some of the ascending thalamic fibers run between the surface and granular layer of the cortex. Since this space originally was an important region for corticopetal impulses, it might be expected that these impulses should give rise to a much greater outgrowth of matrix cells of the granular layer in a superficial direction and to the formation of larger supra-granular cell-layers.—*C. P. Armstrong* (N. Y. C. Children's Court).

1332. Kreezer, G., & Darge, H. Auditory action currents. *Science*, 1932, 75, 105.—On repeating the experiments of Wever and Bray, under conditions which Wever and Bray specify as adequate, the authors find that when certain sources of error are excluded, negative results are always obtained. Induction effects produced by the presence of a transmitter system, such as was used by Wever and Bray, or by the action of other electrical instruments in which the sound stimuli can occasion currents or modifications of current which can in turn induce upon the amplifying system, must be definitely controlled before the effect can be conclusively attributed to action currents of the acoustic nerve.—*N. Goldman* (Clark).

1333. Page, I. H. Einführung in die Chemie des Nervensystems. (Introduction to the chemistry of the nervous system.) *Fortsch. d. Neur., Psychiat., u. Grenzgeb.*, 1931, 3, 491-503.—The author describes the biochemical methods which are applicable in neurology and psychiatry or will probably be so in the future. Mental diseases are no exception to the rule that every sickness is either caused or accompanied by disturbances of metabolism. In a study of the patient's general metabolism one should determine (1) basal metabolism, when the patient is

calmly lying down with a minimum of activity of brain, muscles, and digestive organs, (2) the rise resulting from taking food, and (3) the rise during muscular activity. The main purpose of determining basal metabolism is to diagnose gross anomalies of internal secretion. The author describes also the changes found in states of stupor, manic-depressive insanity, hypnosis, encephalitis lethargica, dementia praecox, etc. Regulation of body temperature is altered during hypnotic sleep. If the hypnotized patient is not actually cold but the idea of coldness is merely suggested to him, his oxygen consumption increases 30-40%. Eating always increases metabolism, but different foods differ markedly in the degree of rise that they occasion. The amino acids of egg white seem to have a specific dynamic effect on cell activity. In schizophrenia, this specific dynamic effect is often but not always diminished. Under the general heading of carbohydrate metabolism, the author describes the glucose tolerance test, blood sugar determination, and blood lactic acid. Under fat metabolism, he discusses unsaturated fatty acids, phosphatids, and cholesterol. Under protein metabolism, he gives the normal figures for total protein in serum, and for albumen, globulin, non-protein nitrogen, urea nitrogen, uric acid, creatinin, amino acids, and ammonia nitrogen. Under mineral metabolism, he discusses first the sodium-potassium-calcium-magnesium balance. In the different diseases this balance is characteristically disturbed. In tetany, calcium is low, whereas phosphorus and sodium are ordinarily high. He describes methods of analyzing blood and urine for these elements and also for phosphorus and iron. The acid-base metabolism is important, because alkalinity increases nerve irritability, and hence alkalosis is associated with tetany; acidity decreases the responsiveness of nerves, and acidosis results in coma. An unexplored but promising field is the study of citric acid in the blood, urine, and cerebrospinal fluid of the mentally diseased, especially the manic-depressives and epileptics. Blood volume is easily determined by injecting a colloidal dye, such as trypan red, and determining colorimetrically the dilution of this dye in a specimen of plasma, but the method has never been applied practically to the mentally diseased. The determination of bromides in blood is especially significant because of the uncontrolled use of bromides as a sedative. Bromide poisoning is commoner among the mentally ill than was once supposed. The chemical methods are described in considerable detail.—*M. F. Martin* (West Springfield, Mass.).

[See also abstracts 1285, 1432.]

MOTOR PHENOMENA AND ACTION

1334. Albernaz, P. M. O nistagmo cefálico de posição. (Cephalic nystagmus of position.) *Rev. oto-neuro-oftal.*, 1931, 6, 489-496.—The author explains the word nystagmus, the nature of cephalic nystagmus, and adds that finding such a condition as a spontaneous phenomenon is exceedingly rare. Some cases are cited from literature. The details of

a clinical case are presented in which the author studies the labyrinthine apparatus. He concludes that this case is unique in that the nystagmus appears spontaneously, corresponding to certain positions of the head; the nystagmus is due to functioning of the semi-circular canals and the macular (otolith) organs.—*C. C. Neet* (Clark).

1335. Banissoni, F. *Importanza della educazione fisica alla luce di recenti dottrine psicologiche.* (The importance of physical training in the light of recent psychological teachings.) *Riv. sci. appl. educ. fis. e giovanile*, 1930, 6, 1-12.—The author discusses on Freudian and Adlerian bases the importance of physical training in child and adolescent psychology. More than anything else he emphasizes the value of physical training which endeavors to develop a society of high average level rather than one of virtuosos.—*A. Angyal* (Turin).

1336. Cuff, N. B. A study of eyedness and handedness. *J. Exper. Psychol.*, 1931, 14, 164-175.—Ten tests of eye and hand usage were given to 237 children and 100 college students. A modification of Parsons' instrument, called a *manoptometer*, the author claims "shows that from 20 to 30 per cent are probably natively left handed."—*S. Renshaw* (Ohio State).

1337. Ferrière, A. *Instincts, tendances et caractère.* (Instincts, tendencies and character.) *Psychol. et vie*, 1931, 5, 207-209.—The error of education, says the author, consists in imposing useless goals upon the individual, which do not help him in his own individual progress. It should, on the contrary, pick out from the instincts those tendencies which are vital and coordinate them. It is not a question of exteriorizing all tendencies, whatever they may be; this means momentary caprices and disordered passions. It is necessary to cultivate those which are profound, durable and healthy.—*Math. H. Piéron* (Sorbonne).

1338. Galdo, L. *Per la ricerca delle attitudini muscolari.* (On the investigation of muscular aptitudes.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 174-177.—*A. Angyal* (Turin).

1339. Galli, A. *Resistenza elettrica del organismo umano e correnti di azione neuromuscolari nei processi psichici.* (Electrical resistance of the human organism and neuro-muscular action currents in the psychical processes.) *Atti d. Pontifica Accad.*, 1931, 89, 287-288.—Experiments carried out by the author in Gemelli's laboratory for psychology are described briefly and the results summarized.—*A. Angyal* (Turin).

1340. Helmoortel, J., & Nyssen, R. *Considérations sur quelques réflexes cochléaires.* (Observations on certain cochlear reflexes.) *Bull. méd.*, 45, 732-735.—The authors review the objective criteria of cochlear excitability: the general muscular reflex, the cochleo-palpebral reflex, the psychogalvanic reflex, and the cardio-vascular reactions. They studied the cochleo-plethysmographic reactions in normal subjects and in cases of complete labyrinthine and

residual deafness. Plethysmography, they say, gives an approximate determination of the degree of cochlear excitability where there is a positive reaction. However, in the absence of reaction, one has no right to assume causes of a psychological nature capable of preventing vaso-constriction as a result of the absence of cochlear excitability.—*Math. H. Piéron* (Sorbonne).

1341. Longostrevi, P., & Mantovani, G. *Cultura fisica.* (Physical culture.) Milan: Hoepli, 1931. Pp. 308. Lire 16.—*A. Angyal* (Turin).

1342. Macquart, R. *Automatisme et volonté.* (Automatism and will.) *Rev. phil.*, 1931, 31, 478-522.—The author studied the manifestations of voluntary activity in the motor sphere. The article is divided into three parts. First, the author trained his subjects to acquire a well-established automatism for a simple movement, and he explains the indications of differential psychology which he found in the acquiring of this automatism. Second, after this automatism was well established, he asked his subjects to make a comparison between it and the voluntary performance of movements of a similar nature. Finally, going further into the domain of the will, he experimented on the motives of choice which precede and condition a voluntary act. He thinks that there seem to be different forms of learning: (1) in regard to the processes used, and (2) in regard to the greater or lesser degree of facility experienced in the acquiring of a useful automatic action.—*Math. H. Piéron* (Sorbonne).

1343. Miles, W. R. *Measures of certain human abilities throughout the life span.* *Proc. Nat. Acad. Sci.*, 1931, 17, 627-633.—This study is part of a research program conducted at Stanford University, investigating certain abilities of the later age groups with special completeness and in direct comparison with younger groups studied under the same external conditions. The subjects for the main portion of the present study were 331 males, ranging from 6 to over 80 years of age. The two functions studied were manual motility and reaction speed, each of which was measured by several tests. Great individual differences were found in both functions, but in general there was an increase in these abilities up to the age of 20 or 30 and a decline thereafter. The correlation ratios between age and the motor ability scores, including women as well as men, ranged from .46 to .67. Product-moment correlation coefficients for men only, and with various age groups, ranged from .28 to .65.—*J. C. Kurtz* (Washington, D. C.).

1344. Nice, L. B., & Neill, A. J. *Further observations on tonus rhythms in diaphragm muscle.* *Proc. Okla. Acad. Sci.*, 1910-1920, 1 (*Univ. Okla. Bull.*, N. S. No. 220), 77.—Previous investigators have indicated that the oscillations in diaphragm muscle of dog and rabbit during normal sleep and under anesthesia were of central origin. The present experimenters proceeded on the assumption that these oscillations might be due to changes in irritability of the muscle itself. This fact was established

by pithing the brain and cutting the phrenic nerve, and then stimulating artificially the peripheral end of the phrenic in the cat and dog. Under their experimental procedure the diaphragm gave tonus rhythms similar to the oscillations that appear when the nerves are intact.—*M. O. Wilson* (Oklahoma).

1345. Nice, M. M. Handedness and speech. *Proc. Okla. Acad. Sci.*, 1922, 2 (*Univ. Okla. Bull.*, N. S. No. 247), 10.—The subjects were seven children, six girls and one boy, who were very slow in speech development and at the same time were ambidextrous. An explanation of speech retardation might be that as long as the dominant hand center was not definitely settled the speech center could not be located.—*M. O. Wilson* (Oklahoma).

1346. Peterson, J., & Allison, L. W. Controls of the eye-wink mechanism. *J. Exper. Psychol.*, 1931, 14, 144-154.—Rates of voluntary blinks were found to be consistent and individually characteristic at a mean of about 3.7 winks per sec. The winks can be self-counted. The authors believe the wink mechanism is a good one for experiments on voluntary controls, set, etc.—*S. Benshaw* (Ohio State).

1347. Petrovic, A., & Tschernolossow, A. Zur Frage über "willkürliche" Pupillenerweiterung. (On the question of voluntary dilation of the pupil.) *Klin. Monatsbl. f. Augenheilk.*, 1931, 85, 23-34.—In the reported instance (the subject was an eye-doctor, director of the ophthalmologic clinic), the voluntary dilation of the pupil succeeded only indirectly because of the influence of the will of the subject on the nerve-muscle of the pupil. The observer suggested to himself through strength of will a frightened and nightmarish sensation. This feeling of anxiety immediately brought about an acceleration of the pulse.—*W. Nolte* (Berlin).

1348. Rosenbluth, A., & Cannon, W. B. Studies on the conditions of activity in the endocrine organs. XXVIII. Some effects of sympathin on the nictitating membrane. *Amer. J. Physiol.*, 1932, 99, 398-407.—The smooth muscle of the nictitating membrane of the cat when properly prepared may be used to record both qualitatively and quantitatively the presence of adrenin and sympathin in the circulating blood stream. Using this method it was found that sympathin is produced when either occasionally contracted smooth muscles or tonically contracted smooth muscles are stimulated by sympathetic impulses. The amount of sympathin so produced depends on the size of the area stimulated. Sympathin and adrenin, when liberated in the circulation at the same time, act cooperatively.—*C. Landis* (N. Y. Psychiatric Institute).

1349. Tashjean, E. A new method for the measurement of the will power; a preliminary report. *Psychol. Rev.*, 1932, 39, 86-87.—The author proposes to measure individual differences in volitional control by determining how long a subject can control his breathing voluntarily.—*A. G. Bills* (Chicago).

1350. Wachholder, K., & Ledebur, F. v. Die Erregbarkeit der "tonischen" und "nicht tonischen" Fasern eines Muskels bei directer und indirecter Reizung. (The excitability of "tonic" and "not tonic" fibers of a muscle in direct and indirect stimulation.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, 228, 183-197.—It was found in this experiment that in direct stimulation the "not tonic" fibers are less excitable, if the duration of stimulation is short, than are the "tonic" fibers. In the case of indirect stimulation, the excitability of the two kinds of fibers was approximately equal. There seems to be a heterochronism between the nerve and muscle excitability in the case of the "not tonic" fibers.—*D. S. Oberlin* (Bryn Mawr).

[See also abstracts 1281, 1285, 1318, 1360, 1372, 1548, 1583, 1584.]

PLANT AND ANIMAL BEHAVIOR

1351. Aptel, E. Etude sur les nidifications de l'*Halictus Malachurus* K. Generation d'été. (A study of nest making in *Halictus Malachurus* K. The summer generation.) *Bull. Soc. entomol.*, 1931, No. 15, 219-222.—In a general way, each bee makes its cells as if it were alone, without becoming interested in the work of its neighbors or taking umbrage at their presence. The whole of the nest building is the result of this general indifference. These workers also preserve their characteristics as solitary Hymenoptera.—*Math. H. Piéron* (Sorbonne).

1352. Breitenbecher, J. K. Responses of *Bruchus* to modified environments. *Proc. Okla. Acad. Sci.*, 1923, 3 (*Univ. Okla. Bull.*, N. S. No. 271), 32-40.—This is the report of the responses of the four-spotted cow-pea weevil (*Bruchus quadrimaculatus*) to varying degrees and conditions of moisture. This species has a life cycle of four stages, egg, larva, pupa, and adult. It has been found that 100° F. is the optimum temperature for genetic researches, and with this condition the entire cycle may be completed within 19 days. The results of nine experiments dealing with this species may be summarized as follows: (1) There was enough moisture in the air or the seeds for normal reproduction, but the time required might be as much as 79 days. (2) The number of progeny was dependent upon the amount of moisture. (3) Higher temperatures caused fewer progeny because of lowered humidity. (4) As to the effects of acids, a very weak solution of sulphuric hastened reproduction, producing the greatest number of progeny in the shortest time; nitric acid retarded reproduction and produced a lethal effect in stronger solutions; and hydrochloric was the greatest retarder to development. (5) Alkali retarded the life cycle. (6) The fumes of alcohol were lethal in their effect and completely inhibited reproduction. (7) Of the different mutants (red, black, wild stock, gray, tan, white), the red had the highest death point (50.5° C.) and the white the lowest (47° C.). (8) When placed in cow-pea meal there was no reproduction; that is, the larvae must have something to bore into. (9) No progeny were produced in peas

soaked in water for one hour or more, although soaking for 30 minutes merely prolonged the life cycle. This indicates that the larvae cannot live in peas from which certain vitamins or other essentials have been leached out.—*M. O. Wilson* (Oklahoma).

1353. Bryan, A. H., & Gaiser, D. W. The influence of diet and the anterior pituitary growth hormone on the growth rate of adolescent rats. *Amer. J. Physiol.*, 1932, 99, 379-390.—Three factors were found to be active in affecting the growth rate of rats in this series of experiments: (1) the individual growth potential of the particular rat; (2) the quality of the diet; (3) the injection of the growth hormone. The rapidity of growth in the injected animals was limited in the majority of cases by the diet offered to those animals, and to a lesser extent by the growth potential of each particular animal.—*C. Landis* (N. Y. Psychiatric Institute).

1354. Combes, M. Sur les larves de fourmis proménées pendant la nuit par des *Formica fusca* et des *Formica pratensis* dans six boîtes à observations. (On ant larvae moved about during the night by *Formica fusca* and *Formica pratensis* in six observation boxes.) *Ann. des sci. nat.*, 1931, 14, 275-280.—*Math. H. Piéron* (Sorbonne).

1355. Crabb, E. D. A note on the relation of heat and moisture to the behavior of the Texas land snail. *Proc. Okla. Acad. Sci.*, 1922, 2 (*Univ. Okla. Bull.*, N. S. No. 247), 10-11.—These observations concerned *Bulimulus dealbatus*, *B. mooreanus* and *B. parriarcha* near Fort Worth, Texas, 1917-1918. These snails are rarely active between eight o'clock in the morning and sunset unless cloudy weather prevails. This led to the assumption that moisture rather than darkness was the controlling factor in their activity, and an experiment was designed to test the validity of the assumption. Increased activity after a rain or after the mollusks had been immersed in water led to the conclusion that moisture rather than darkness or heat was the factor to which they were responding.—*M. O. Wilson* (Oklahoma).

1356. Crabb, E. D. Observation on the behavior of a male dickcissel, *Spiza americana*, during the nesting period. *Proc. Okla. Acad. Sci.*, 1922, 2 (*Univ. Okla. Bull.*, N. S. No. 247), 11-12.—This male took no part in nest-building, incubation or rearing the young, but sang while the female did the work. He used force to cause her to resume incubation after being frightened from her nest. The female deposited five eggs, laying one each day for five consecutive mornings. The incubation period was 250 to 255 hours or between 10 and 11 days.—*M. O. Wilson* (Oklahoma).

1357. Cros, A. Biologie des Meloés. (The biology of Meloés.) *Ann. des sci. nat.*, 1931, 14, 189-237.—*Meloés* undergoes seven changes before reaching the final state, a fact that explains why the species has been studied so long under several names. In the adult stage the animals are herbivorous, being in general lovers of sunlight and being able to feign death for several hours when captured. Their eggs

are laid in the ground. As soon as the larvae hatch, they scatter in different directions and climb plants, particularly honey-producing ones, where they lie in ambush waiting for Hymenoptera which come for honey. They try to attach themselves to the latter and thus to penetrate into their nests. However, it sometimes happens that the larvae make a mistake, choosing insects which cannot further their development. When the larvae are once inside the bee's nest, they immediately attack the eggs of the bees, taking then their second larval form and continuing their nourishment by eating the honey. In the third stage, the larvae are obliged to leave the cells, which are now emptied of their contents, and to seek their sustenance outside. They change their diet and, instead of being honey-eaters, become carnivorous, devouring the neighboring bee larvae. Finally, they cease to eat, bury themselves in the ground, and undergo their last metamorphosis. The same insect, according to its stage of development, is thus honey-eating, carnivorous, or herbivorous.—*Math. H. Piéron* (Sorbonne).

1358. Dennis, W. The proprioceptive ability of the white rat. *J. Comp. Psychol.*, 1931, 12, 379-392.—The problem was to determine whether a simple maze could be accurately run upon the basis of proprioceptive cues alone. In the first experiment the rats were required to locate a wire ladder in the center of an open space, the only orientation being that given them by a short alley through which they entered the space. At the top of the ladder they found an elevated pathway leading to food. The apparatus was constantly rotated to eliminate fixed extra-apparatus stimuli. Rats trained in the light could not directly locate the ladder in darkness. Blind rats were unable to exceed an accuracy of 7% in locating the ladder. Similar results were obtained when the animals were placed in the center of a circular apparatus and required to locate food at the edge of the circle straight ahead from the small entrance alley. The small central alley was oriented so that the only constant feature of the situation was that of going straight ahead after leaving the alley. Normal animals learned the problem, but blinded animals had an average error of 15.2°. The author claims that proprioception is not accurate enough to explain maze orientation. Exteroceptive stimuli are essential for accurate performance. Bibliography.—*N. L. Munn* (Pittsburgh).

1359. Dunlap, K., Gentry, E., & Zeigler, T. The behavior of white rats under food and electric shock stimulation. *J. Comp. Psychol.*, 1931, 12, 371-378.—60 rats were trained to pass through a door leading from one compartment to another in order to obtain food. Their behavior was then observed when obstructed by (1) an electric grid, and (2) a laced wire barrier. "Significant differences in behavior were noted, and the presumption raised that strength of 'drive' and minimal strength of discouraging shock are not related in any simple way." A comparison of results obtained with shock currents of .044, .083, and .176 milliamperes respectively when

the animals, upon receiving a shock in one compartment, were required to run to the other compartment shows the medium shock to be most efficient.—N. L. Munn (Pittsburgh).

1360. Evans, H. M. Testicular degeneration due to inadequate vitamin A in cases where E is adequate. *Amer. J. Physiol.*, 1932, 99, 477-486.—Male rats maintained on diets adequate in vitamin E and low in vitamin A become sterile by the third month of life, though when entirely without E and with adequate A, sterility does not supervene until later.—C. Landis (N. Y. Psychiatric Institute).

1361. Guillaume, P., & Meyerson, I. Recherches sur l'usage de l'instrument chez les singes. II. L'intermédiaire lié à l'objet. (Researches concerning the ape's use of instruments. II. The intermediary attached to the object.) *J. de psychol.*, 1931, 28, 481-555.—A continuation of the authors' attempt to analyze the implement-using behavior of chimpanzees. In this paper the stimulus-object (a banana) is attached to a cord, a piece of wood, or some other instrument. Various obstacles are introduced, as in the work of Köhler and Yerkes, and the behavior manifested during the solutions is described. 42 diagrams and 3 plates illustrate the various situations used. Situations in which a detour was involved were most difficult. The great adaptability of the animals is stressed, the authors feeling that no simple mechanical explanation of the behavior is possible.—N. L. Munn (Pittsburgh).

1362. Hull, C. L. The goal-gradient hypothesis and maze learning. *Psychol. Rev.*, 1932, 39, 25-43.—The hypothesis, which is an extension of Hull's goal reaction hypothesis, is that the goal reaction gets conditioned most strongly to the stimuli preceding it, and the other reactions in the sequence get conditioned to their stimuli, with a strength inversely proportional to their temporal or spatial remoteness from the goal reaction. Since this assumes a gradient, which is related to the goal, he calls it a goal-gradient. The shape of this gradient is shown, by reference to Yoshioka's experiment in selection of maze pathways by the rat, to be positively accelerated, and to conform to the logarithmic law. The author deduces ten actual behavior phenomena from his principle, such as choice of shorter path, order of elimination of blind alleys, relative rates of locomotion in different parts of the maze, etc.—A. G. Bills (Chicago).

1363. Howell, L. D. The relation of the social, economic and educational development of farmers to their membership in organizations. *Proc. Okla. Acad. Sci.*, 1927, 7 (*Univ. Okla. Bull.*, N. S. No. 409), 213-218.—"Although the farmers as a whole in the area surveyed had not been great joiners of organizations, had not made very high grade in school, had not made a very rapid economic progress, and had a relatively low standard of living as compared to farmers in other sections of the country and to people engaged in other industries, the data presented appear to justify the conclusion that members of the Oklahoma Cotton Growers' Association were on the

average greater supporters of other organizations, were economically more progressive, were educationally more advanced and maintained a higher standard of living than farmers who were not members of this association."—M. O. Wilson (Oklahoma).

1364. Karn, H. W. Visual pattern discrimination in dogs. *Univ. Pitt. Bull.*, 1931, 7, 391-392.—Preliminary report of an experiment in which dogs gave evidence of possessing good pattern vision.—N. L. Munn (Pittsburgh).

1365. McAllister, W. G. A further study of the delayed reaction in the albino rat. *Comp. Psychol. Monog.*, 1932, 8, No. 2. Pp. 103.—In an apparatus differing from preceding ones, in that the animal was kept moving during the period of delay and in that only two choices were offered, white rats were able to delay for a maximum period of 11½ seconds. (The criterion was 80% correct responses in 40 consecutive trials.) This delay was shorter than that estimated for Hunter's animals. Overt bodily orientation was not necessary. "The experimental evidence presented indicates that some of the animals reacted on the basis of some intra-organic cues, the nature of which cannot be determined from the data. . . ." Visual, auditory, and kinesthetic stimuli were effective, although visual and auditory stimuli were most effective, in leading to correct delays. Bibliography.—N. L. Munn (Pittsburgh).

1366. Nice, L. B., & Todd, J. B. The activities of young chicks after the removal of their semicircular canals. *Proc. Okla. Acad. Sci.*, 1926, 6, Pt. I (*Univ. Okla. Bull.*, N. S. No. 348), 52-53.—When the semi-circular canals were removed from one side of the chick the following results were obtained: (1) forced position or torsion of the head toward the injured side; (2) in all but two cases (total number not given) the forced position appeared immediately after the operation, the interval for the two exceptions being 3 days and 11 days; (3) in chicks from 2 to 30 days old forced position usually lasted 3 to 5 days, while for those 6 to 8 weeks old this duration was as long as 3 weeks; (4) whirling movement toward the operated side occurred in all subjects, although in many chicks it did not last long—from 1 to 7 days; and (5) normal wing positions were altered, that is, when the birds were suspended by the feet, the wing on the operated side was held up and the other was relaxed. The following observations were made concerning those birds in which the canals were removed from both sides: (1) forced position took place first on one side and later on the other in 6 cases and in another the head was drawn back in the median plane; and (2) whirling movements lasted for a number of weeks, and even after these subjects were grown, they could be identified by the sharp turns they made while running. This was also true of one chick 6 weeks old with unilateral operation. In general it was observed that recovery from the effects of removal of the canals was more rapid in chicks under 3 weeks of age than in older ones.—M. O. Wilson (Oklahoma).

1367. Nice, M. M. Some experiences with mourning doves in captivity. *Proc. Okla. Acad. Sci.*, 1910-1920, 1 (*Univ. Okla. Bull.*, N. S. No. 220), 57-65.—This is the report of a study of the activities of two male mourning doves (*Zenaidura macroura marginella*) from fall until spring, 1919-1920. Their reactions to each other and to human beings, their vocal development, their growth in weight, their food preferences and the date of their maturing are recorded. A list of seven references is appended.—M. O. Wilson (Oklahoma).

1368. Patrick, J. E. The effect of emotional stimuli on the activity level of the white rat. *J. Comp. Psychol.*, 1931, 12, 357-364.—Rats were placed in Dashiell's "activity" maze one and one-half hours after eating and a pair of buzzers were sounded to produce an emotional reaction. The behavior of the animals was recorded, in terms of distance travelled, during a two-minute daily period. The data indicate decreased activity level as a result of emotional stimulation when no "drive" is present. A control group placed in the same maze with the same degree of hunger, but with no emotional stimulation, showed 27% more activity than the experimental group. These results differ from those found for emotional situations in the usual experimental maze where the animal is hungry.—N. L. Munn (Pittsburgh).

1369. Bennie, A. E., & Weese, A. O. Hibernation studies I. Behavior of *Rana* during the hibernation period. *Proc. Okla. Acad. Sci.*, 1928, 8, 84-90.—The period covered by this experiment was November 5, 1926, to March 23, 1927. During this period records were kept of temperature, direction and velocity of wind, amount of rainfall, etc., by the local meteorological station, which was located within half a block of the experimental area in the town of Norman, Oklahoma. Temperatures ranged from 0° to 26° C. Of 18 frogs, 13 lost weight, the greatest loss being 7.3 grams and the average 4.65 grams. The other five gained an average of 2.48 grams. The degree of dormancy was greatest when the temperature was lowest. A rise in temperature tended to arouse the dormant animal even though it did not feed. Time of first feeding was around February 23, as a little food was found in the stomach. However, the entire digestive tract was not crowded with food until March 6. A fall in external temperature generally caused the frog to become quiet, burrow under cover and become dormant. Should the external temperature suddenly rise to its previous height, the animal would awaken and become active. No liquid excretion from the kidneys was observed from the time the frogs became dormant until they became active in the spring.—M. O. Wilson (Oklahoma).

1370. Rose, E. L. The establishment by rats of two contrary discrimination habits. *Univ. Calif. Publ. Psychol.*, 1931, 4, 335-345.—Four white rats discriminated between a black and a white stimulus by responding to the white stimulus in the first section of a double discrimination box and to the black stimulus in the second section. The apparatus consisted, essentially, of two discrimination boxes. A

correct response in the first box led the animal into the entrance of the second box, where another discrimination was required. Control tests showed the response to be visually controlled.—N. L. Munn (Pittsburgh).

1371. Slater, J. E. Brightness vision in the albino rat. *Univ. Pitt. Bull.*, 1931, 7, 394-395.—Preliminary report of a research in which rats discriminated brightness differences as small as 32% of a brighter standard. The ratio of the standard brightness to the increment necessary for discrimination was approximately constant for the 4 standards used.—N. L. Munn (Pittsburgh).

1372. Todd, J. B. Nystagmus in young chicks. *Proc. Okla. Acad. Sci.*, 1926, 6, Pt. I (*Univ. Okla. Bull.*, N. S. No. 348), 54.—The results of this study are: (1) true nystagmus results from either visual or labyrinthine stimuli or both when the subject is rotated; (2) post-nystagmus seems to be due to labyrinthine stimuli alone, as it does not occur unless labyrinthine stimuli are present; (3) periods of "return" and "compensation" bear a definite relation to each other, depending upon the speed of rotation and the particular operative condition; and (4) a compensatory movement is always of longer duration than the return movement following it.—M. O. Wilson (Oklahoma).

1373. Tryon, E. C. Studies in individual differences in maze ability. V. Luminosity and visual acuity as systematic causes of individual differences, and an hypothesis of maze ability. *J. Comp. Psychol.*, 1931, 12, 401-420.—A series of carefully controlled experiments in which white and hooded rats were subjected, after learning a maze, to various changes in lighting conditions to determine whether the greater acuity of the pigmented animals would be a cause of individual differences in maze behavior. No significant differences were observed which would indicate that differences in visual acuity, or in the lighting conditions of the maze during the later stages of learning, are potent causes of differential learning ability. The hypothesis is presented that individual differences in learning are "hereditary and of the multiple factorial type." Tryon thinks that the most potent factor in individual differences in learning ability is the "capacity for association." Bibliography.—N. L. Munn (Pittsburgh).

1374. Tsai, L. S. The cul-de-sac phenomena. *J. Comp. Psychol.*, 1931, 12, 393-400.—96% of cul-de-sac entrances made by 36 rats exhibited homolaterality of turns inside and outside of the blind alley; i.e., the turns inside and outside of the alley were in the same direction. With symmetrically located paths the incidence of homolaterality reached 98.4%. The frequency of homolaterality of turns increased directly with the logarithm of the number of successive trials. The author says, "The cul-de-sac phenomenon throws light upon the mechanism of turns, on which depends largely the present-day technique of comparative psychology, such as maze problems, simple and multiple choice problems, and the like."—N. L. Munn (Pittsburgh).

1375. Washburn, M. F., Collens, E. L., & Upjohn, E. The relation to hunger and activity drives of the factor of habituation to the maze. *J. Comp. Psychol.*, 1931, 12, 421-427.—The factor of habituation was partialled out in studying the hunger and activity drives during maze learning of a group of 11 mice. The results are summarized as follows: "When the factor of increase with time is partialled out of the correlations between daily speed and daily hunger, and those between daily speed and daily correctness, while most of these correlations are considerably reduced, there remains fairly substantial support of the conclusion drawn in the 1926 paper, that it is possible to identify certain mice whose ruling drive in the maze is hunger; which tend to run faster on the days when they eat more and make fewer errors; and others whose ruling drive is the desire for activity; which run as fast when they eat little and make many errors as when they eat more and make few errors."—N. L. Munn (Pittsburgh).

1376. White, L. A. The mentality of primates. *Scient. Mo.*, 1932, 34, 69-72.—Infra-primates are non-tool-using, primates are tool-using, man is both tool- and symbol-using.—J. F. Dashiell (North Carolina).

[See also abstracts 1269, 1283.]

EVOLUTION AND HEREDITY

1377. Haecker, V., & Ziehen, T. Beitrag zur Lehre von der Vererbung und Analyse der zeichnerischen und mathematischen Begabung, insbesondere mit Bezug auf die Korrelation zur musikalischen Begabung. (Contribution to the theory of heredity and analysis of artistic and mathematical talent, with special reference to the correlation of these with musical talent.) *Zach. f. Psychol.*, 1931, 120, 1-45.—Continuing earlier more restricted investigations in this subject, a questionnaire was sent out in 1925 to nearly all of the professors of mathematics and physics in the German universities and technical high schools. Of 483 sent out, 127 complete replies were returned, giving in regard to the individual, his wife, his children, his siblings and three generations of paternal and maternal ancestors full information concerning the quality and quantity of musical, artistic and mathematical ability. The present paper discusses the findings in regard to musical gifts only. In 27 cases where the father was musical and the mother not, 60% of the children were talented, 24% not, the rest being doubtful. In 44 cases where the mother alone was musically gifted 57% of the children were talented and 24% not. In both cases, but especially the former, the daughters tend more than the sons to inherit the talent. There were 44 cases of motor-sensory dissociation reported; although the data are insufficient to prove it, Mendelian inheritance is suggested. The rhythmic component in musical talent, of which analysis reveals four parts, is in general associated with both motor and sensory musical aptitude, but not so closely with the former as might be expected. It is more common in the female sex. Musical memory is most

often but not invariably associated with positive motor and sensory gifts. It is probably also a dominant trait. Brief discussion is given to musical understanding and composition. The relation of musical to artistic and mathematical talent will be dealt with in a later paper.—M. Lee (Chicago, Ill.).

[See also abstracts 1422, 1423, 1466, 1477.]

SPECIAL MENTAL CONDITIONS

1378. Alexander, F. M. The use of the self: its conscious direction in relation to diagnosis, functioning and the control of reaction. (Introduction by John Dewey.) New York: Dutton, 1932. Pp. xix + 143. \$2.00.—Dewey writes: "There is everywhere increasing doubt as to whether physical mastery of physical energies is going to further human welfare, or whether human happiness is going to be wrecked by it. . . . If there can be developed a technique which will enable individuals really to secure the right use of themselves, then the factor upon which depends the final use of all other forms of energy will be brought under control. Mr. Alexander has evolved this technique." Alexander describes the development of his method and illustrates its application to acts of skill, to stuttering, and to medical diagnosis. Alexander's method involves the following points: the establishment of a reasoned, or conscious, direction of activity in place of habitual direction; the inhibition of the usual response to a given stimulus, while the subject repeats his correct instructions and while the teacher makes the subject familiar with new sensory experiences. Great emphasis is placed upon the faulty guidance offered by familiar sensory experience, upon the function idea of the end-result in arousing the old faulty habits, and upon the concept of the organism as a whole.—W. S. Hunter (Clark).

1379. Allendy, R. The mechanism of auto-punishment. *Psychoanal. Rev.*, 1932, 19, 72-76.—Freud explains the mechanism of auto-punishment as arising from the super-ego. In Freudian theory, the child's hatred of the parent causes him to fear punishment from that parent; when the parent is introjected as the super-ego, the punishment then originates from within. Then the individual, feeling guilty over the repressed hatred in his unconscious, has to punish himself for it. Allendy explains the mechanism of auto-punishment otherwise. He sees it as the result of a struggle between the primitive instincts—the individualistic and social instincts. There are two sets of individual instincts, one gathering around the digestive functions, the other around the sexual functions. Both are balanced and held in check by the social instinct. Conflicts arise in the individual, who wishes to satisfy his possessive desires or sexual impulses in ways that would bring punishment from society. The social instinct, by bringing up a picture of the disapproval or punishment that would follow the gratification of the individual instincts, imposes repression or censorship upon the latter. The stronger the individualistic desires, the more strongly must the social instinct pre-

sent these pictures, hence arousing anxiety and sense of guilt. At last these excessive representations of the social instinct appear as realities of the present, not as something feared for the future, and the individual must punish himself because he feels so guilty. The mechanism of auto-punishment plays a part in all the neuroses. It also operates to produce a number of diseases which have been considered organic. Nearly all diseases of the digestive tract may be considered to have their origin in the mechanism of auto-punishment. The sense of guilt and the obscure wish to die are important in tuberculosis. It may well be that we shall find that even epidemic infectious diseases require a certain psychic preparation of this nature before they can overcome a person.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1380. Baudouin, C. Caractère et psychanalyse. (Character and psychoanalysis.) *Psychol. et vie*, 1931, 5, 215-218.—*Math. H. Piéron* (Sorbonne).

1381. Bien, E. Minor analyses in a sanatorium. *Psychoanal. Praxis*, 1931 (Feb.), No. 1.—The author, following the dictum of Stekel that such analyses are within the province of the general practitioner, undertook a curtailed treatment of some discouraging cases in a sanatorium, with success. Dream analysis revealed the ambivalent attitude towards life; an obsessional hypochondriac was cured after three weeks of treatment; a case of agoraphobia of thirty-six years' duration lost all symptoms and went around alone after four weeks' treatment by the indirect method (a description of the mechanism of cases resembling that of the patient). Further treatment for a similar period for two successive years resulted in complete cure, lasting now for several years.—*C. P. Armstrong* (N. Y. C. Children's Court).

1382. Bingham, W. V. [Ed.], Moss, F. A., Watson, J. B., Landis, C., & Allport, F. H. Our changing personalities. Chicago: Univ. Chicago Press, 1932. Pp. 32.—Listener's notebook No. 3 for the radio program on *Psychology Today* presented by the National Advisory Council for Radio in Education. It contains an introductory chapter by Moss in which the physiological and environmental conditions of personality development are discussed. Moss also outlines, with notes and supplementary readings, his two addresses: *Transient Changes in Personality* and *Mending Broken Personalities*. Watson similarly presents *How to Grow a Personality*. Landis outlines a talk on *Growing Older* and Allport outlines his topic *Personality in Our Changing Society*.—*N. L. Munn* (Pittsburgh).

1383. Bragman, L. J. The escape-acts of Houdini. *Psychoanal. Rev.*, 1932, 19, 77-79.—Houdini was conditioned to his peculiar vocation by a mother fixation. His performances symbolize the birth mechanisms. His acts were characterized by exposure to water, concealment in baskets, boxes, etc., and by struggles for release from these symbolic intra-uterine states. His intense seriousness about his vocation, his acceptance of the physical hardships which he had to endure in many of his acts, and his restless quest for new variations of the escape act, all

indicate that his professional interest was motivated by emotion and over-determined.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1384. Burloud, A. Comment connaître son caractère. (How to know one's character.) *Psychol. et vie*, 1931, 5, 209-212.—Character is not the sum of the tendencies, but their unity. The method to follow in the study of character is internal analysis on the one hand and external analysis on the other, because one can study oneself objectively.—*Math. H. Piéron* (Sorbonne).

1385. Clark, L. P. Can child analysis prevent neuroses and psychoses in later life? *Psychoanal. Rev.*, 1931, 19, 46-55.—The scientific study of mental disorders has not led to the same degree of control over them that the study of internal medicine has given us over physical illa. But we can begin to recognize tendencies in infancy and childhood that may lead to later mental disorders. The infantile grief for the lost loved one, for example, is a miniature melancholic episode that may later reappear as melancholia. We know, too, that paranoia and paranoid states have a basis in repressed homosexual conflicts. Child analysis may offer the hope of treatment for these pre-psychotic pictures and prevent their bursting into full flower in adult years. The play technique is an important method of child analysis, in which the child dramatizes the various conflicts that block the normal libidinal development. The play phantasies of the child are like day-dreams or dreams in adults. All the play-phantasies are subject to the laws of dream interpretation outlined by Freud; they show condensation, displacement, symbolization and reversals. In child analysis, the play is the counterpart of the free association in adult analysis. The analyst must interpret the play material to the child, for only through recognition of its meaning can freedom from anxiety be obtained. The effectiveness of the interpretation can be gauged by the lessening of affect shown by the child and the relief of anxiety. Often the conflict in the child's mind works from the outer fringe of his world and only last of all does he understand that his conflicts are really about his parents. When the parent conflict has been fully analyzed and worked through, the dramatization ceases and the analysis is completed. The repetitive compulsion of the dramatization is always continued until the primary fixation is released. When we do child analysis effectively, it becomes possible for the child to develop normal sexuality, and the formation of a tolerant and varied super-ego is also possible. While child analysis is not yet conceived as a sure and easy road to prevention of adult neuroses and psychoses, it seems that further work in this field will be very important for mental hygiene.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1386. Dugas, L. Caractère et liberté. (Character and liberty.) *Psychol. et vie*, 1931, 5, 224-227.—*Math. H. Piéron* (Sorbonne).

1387. Duthil, R. La maîtrise de soi par la méthode graphique. (Self-control by the graphic method.)

Psychol. et vie, 1931, 5, 231-232.—*Math. H. Piéron* (Sorbonne).

1388. Dweishauvers, G. L'état présent de la science du caractère. (The present state of the science of character.) *Psychol. et vie*, 1931, 5, 212-215.—Two methods have predominated in the study of character; that of Paulhan, which tries to organize according to the laws of mental activity, and that of Heymans and Spearman, which consists in examining the strength of different forms of mental activity and establishing between them a calculation of correlations which is of such a nature as to furnish practical guidance, indicating what should be remedied and equalized in the individual tendencies. The question leads to this double problem: to arrive at a determination of the correlations between the possibilities of the mental life; and to teach the individual to know his tendencies and to use them by a conscious effort and a precise method.—*Math. H. Piéron* (Sorbonne).

1389. Eckstein, F. Die Flucht in das Unendlich-kleine. (The flight into the infinitesimal.) *Psychoanal. Bewegung*, 1931, 3, 538-562.—This is a study of the Leibnizian philosophy, the mathematico-mechanical conception of all nature. The author, after tracing his own development in explanation of the universe, comments on the Möbius explanation of the monad as a microcosm that mirrors the whole. Each monad is self-contained, the hierarchy of monads is the pre-established harmony that exists in the whole. The author takes into the realm of metaphysics the atomic theory, discussing monadism as spiritual atomism or individualism. He takes up the reality of the infinitely small, and the question of the future life as a related concept. He compares the explanations of a number of thinkers in the field, and shows the consistency of the Leibnizian theory.—*A. B. Herrig* (Michigan Central State Teachers College).

1390. Ewen, J. H. The psychological estimation of the effects of certain drugs upon the syntonie and schizophrenic psychoses. With a brief inquiry into a physiological basis of temperament. *J. Ment. Sci.*, 1931, 77, 742-766.—The author summarizes personality types, deducing that temperamental differences are the resultant of many complex forces probably acting upon inborn constitutional peculiarity. The law of shifting of attention, measured by the rate of alternations of ambiguous figures, Schölder's staircase, Scripture's blocks and Necker's cube, as well as by the rotating arms of a small windmill, was studied according to experimental technique, for ten schizophrenic and ten manic-depressive female patients in a hospital. The average rate of fluctuating perception was for the former group 22.5, for the latter 2.75. Of a control group of ten normal female subjects, half (Group A) experienced nearly as rapid a rate of alternations as the schizophrenics, half (Group B) nearly as slow a rate as the manic-depressives. Most of the schizophrenics under the influence of drugs had fewer alternations, most markedly so with alcohol and ether, next with adrenalin and ephedrin, the extroverting group of drugs. The nearest ap-

proximation to Group A of normal subjects is the result given by alcohol. Increase of alternations, particularly with opium, caffeine and strychnin, the introverting group of drugs, was characteristic of the manic-depressives. Opium gave the nearest approximation to Group B of normal subjects. The results suggest that in the method of ambiguous figures and the windmill illusion gross temperamental differences in normal subjects may be shown. The same methods are of some value in seeking the etiology of the two psychoses studied and in investigating the effect of drugs provisionally classified as introverting and extroverting. The drugs bring the psychotics to the level of normal individuals of the same temperamental category. It is inferred that the schizoids have a low, the syntonics a high synaptic resistance, which is profoundly influenced by drugs. It may be assumed that the essential basis of temperament is the presence in the organism of some substance akin to the two classes of drugs investigated, possibly derived from endocrine activity, the identification of which lies in the realms of physiology and biochemistry. A bibliography is appended.—*C. P. Armstrong* (N. Y. C. Children's Court).

1391. Fernandez, R. Note sur une manifestation du caractère. (Note on a manifestation of character.) *Psychol. et vie*, 1931, 5, 220-222.—*Math. H. Piéron* (Sorbonne).

1392. Ferrière, A. Le culte de la sincérité. (The cult of sincerity.) *Psychol. et vie*, 1931, 5, 252-254.—*Math. H. Piéron* (Sorbonne).

1393. Fontaine, D. Notre caractère, notre destinée et nous. (Our character, our destiny, and ourselves.) *Psychol. et vie*, 1931, 5, 227-228.—*Math. H. Piéron* (Sorbonne).

1394. Freud, A. Introduction à la psychanalyse des enfants. (Introduction to the psychoanalysis of children.) *Rev. fr. de psychanal.*, 1930-31, 4, 610-633.—See III: 238.—*R. R. Willoughby* (Clark).

1395. Günther-Schwerin, L. Spukwesen und Materialisationen. (Spirits and materializations.) *Zsch. f. Parapsychol.*, 1931, 6, 388-397.—The author considers spirits (incarnations without the coöperation of a medium) and materializations through mediums as transformed substance. The spirits, according to the plastic ability of the "invisible molder" can take on psychic characteristic features and in this way become independent personalities. The author considers possible the development of the plastic ability of the "invisible molder" from the novice stage to that of the finished creator. Spirits who materialize often dress in self-luminous matter, for they maintain that it is after the resultant materialization that they first organize according to their apparel. For the psychic manifestations the author refers to the appearance of a "second self" or double. The known sending forth of the double occurs with the absolute consciousness of the individual, so that the double steps forth visible and striving to attain his goal. He leaves behind traces, capable of being re-examined, and evidence of his extra-

bodily influence. The body of the medium is meanwhile utterly unconscious. For want of a human medium, the spirits by ghostly ways and means use (according to Danmer's opinion) stored-up material for their materializations, called "medialum."—*W. Nolte* (Berlin).

1396. Jones, E. *Le problème de Paul Morphy.* (The problem of Paul Morphy.) *Rev. fr. de psychanal.*, 1930-31, 4, 735-761.—See V: 2709.—*R. R. Willoughby* (Clark).

1397. Klein, M. *Les premiers stades du conflit oedipien.* (The first stages of the Oedipus conflict.) *Rev. fr. de psychanal.*, 1930-31, 4, 634-649.—See II: 1864, 2769.—*R. R. Willoughby* (Clark).

1398. Knopf, O. *Das "sexuelle Trauma."* (The "sexual trauma.") *Int. Zsch. f. Indiv.-psychol.*, 1931, 6, 457-461.—Interpretation of the case of an unmarried school teacher, showing that the thought of an attempted incestuous attack by her father was falsely used to hold him responsible for her failure in love (frigidity) and fear of marriage. These were held rather to be based on her wrong notion of the inferior position of women in the home and in sex relations and on an extremely self-centered uncooperative social attitude.—*O. N. de Weerd* (Beloit).

1399. Kovarsky, V. *Le caractère et l'orthopédie psychique.* (Character and psychic orthopedy.) *Psychol. et vie*, 1931, 5, 228-231.—*Math. H. Piéron* (Sorbonne).

1400. Krasfeldt, W. M. *Secret ways of the mind.* (Trans. by R. M. Eaton, intro. by C. G. Jung.) New York: Holt, 1932. Pp. xi + 188. \$1.50.—A translation of *Die Psychoanalyse, psychoanalytische Psychologie* (Berlin: de Gruyter, 1930). The author sets forth from the point of view of Jung the pre-psychoanalytic and early psychoanalytic studies on personality, and the systematic viewpoints of Freud, Adler and Jung. The translator contributes a preface of 29 pages on the significance of the dynamic point of view in psychology, and Jung considers in his introduction the main points of difference between his position and that of Freud (and to a lesser extent that of Adler).—*R. R. Willoughby* (Clark).

1401. Landis, O. *Growing older.* Chicago: Univ. Chicago Press, 1932. Pp. 7.—A radio discussion of the psychological problems of old age.—*N. L. Munn* (Pittsburgh).

1402. May, M. A. *The foundations of personality.* In *Psychology at Work*. New York: Whittlesey House, McGraw-Hill, 1932. Pp. 81-101.—Personality may be defined as that total organization of reaction tendencies, habit patterns, and physical qualities which determine the individual's social effectiveness. It is not defined wholly by his responses to others, but also by the responses that others make to him as a stimulus. A person's traits are not possessed by him, but are in fact his constant stimulus values. The scientific understanding of personality necessitates (1) a qualitative description of behavior traits. This is made particularly difficult because of

the current use of misleading popular terminology, which tends to "explain" rather than to describe behavior. A further problem lies in the differentiation between formal and functional definitions. The former range in use from chemical and physical to stimulus-response terminologies; the latter, from stimulus-response terminology to that of purposes and desires. It is a question which of these yields the better understanding. The next step in understanding is (2) to determine relationships between traits, to detect nuclei of traits. To this problem there are three different approaches: (a) that of inner mechanisms, ranging from glandular hypotheses, through reflexology, inhibitions, and integration, to instinct-hypotheses and psychoanalytic complexes; (b) that of external environment (the situational approach) maintained by sociologists; and (c) that of the phylogenetic or of the cultural background, the former with its roots in biology, the latter in sociology. The author suspects that ultimately it will be found that each of these approaches has contributed a fair share to the solution of the problem of understanding personality and of predicting behavior, but points out that "there is as yet no substantial foundation of fact on which a scientific understanding of character and personality may be based." Above all things we need measured facts.—*O. L. Harvey* (Cambridge, Mass.).

1403. McDermott, J. F. [Ed.] *The sex problem in modern society: an anthology.* New York: Modern Library, 1931. Pp. xii + 404. \$.95.—This anthology is divided into eight sections, each of which contains at least three essays representing different points of view on the subject to which the section is devoted. In his foreword the editor states that "the essays will give the lay reader a definite idea, in a small compass, of what the leading thinkers today feel about sex." Section I, on the sexual ethic, contains essays by Bertrand Russell, Edward Sapir, and George Jean Nathan. In Section II, on the psychology of sex, Schmalhausen represents the Freudians; Adler, the Adlerians; and Jacques Fischeer writes on the sex impulse in man. The section on love has contributions from Havelock Ellis, Grace Potter, and Dora Russell. Ben B. Lindsey and Wainwright Evans speak for companionate marriage; V. F. Calverton, for the marriage situation in Russia; and Robert H. Lowie and Will Durant on less specific aspects of the marriage question. Edward M. East, Franz Boas, and André Siegfried write on the eugenics problem. In the section on birth control, Sanger speaks for it; Marjorie Wells, against it; C. F. Potter, for the church's acceptance of it; and Henry K. Norton, for birth control as an alternative for war. The adolescent receives attention from Joseph Collins, Phyllis Blanchard, and C. G. Jung. Sex in literature is handled by Calverton, Robert Herrick, Morris L. Ernst and William Seagle.—*M. Goodrie* (Clark).

1404. McLaughlin, M. A. *The genesis and constancy of ascendance and submission as personality traits.* *Univ. Iowa Stud.: Stud. Educ.*, 1931, 6, No.

5. Pp. 95.—The nature, genesis, and constancy of the traits of ascendance and submission as they appeared in well-marked cases was studied. The theoretical objective was to discover whether ascendance and submission are "immutable phases of personality resting probably upon fixed morphological or physiological characteristics, or whether they are alterable traits having their genesis in the social environment." 75 cases of extreme ascendance and submission were isolated by means of the Allport A-S Reaction Study and ratings of associates, from a group of over 400 college students. 25 subjects were finally chosen for intensive study and modification. The following procedures were carried on through a period ranging from five to seven months: diagnosis and motivation through personal interview, cooperation and aid of associates of subject, fostering of insight through selected readings and analogous case studies, correction of physical handicaps (particularly speech) and the removal of environmental factors disadvantageous to the subject. There was evidence of definite modification in the submissive group, but not in the ascendant group. Probable causative factors entering into the development of submission were: circumstances productive of feelings of inferiority, lack of opportunity for initiative in the home environment, undue parental restraint. Probable causative factors entering into the development of ascendance were: responsibility assumed early in life, positive parental training in self-confidence and initiative, many social contacts in childhood and adolescence, delicate health and consequent indulgence in early childhood by other members of the family, prowess in athletics, participation in school activities, unrestrained freedom, superior physical and mental qualities, and compensation for some recognized defect. It is concluded that ascendance and submission are traits that have their genesis in the early social relationships of the individual.—*B. Wellman* (Iowa).

1405. Menon, V. K. K. *A theory of laughter*. London: Allen & Unwin, 1931. Pp. 188. 5/.—Following McDougall's theory of instincts, Menon holds that the situation is the occasion rather than the cause of laughter. The cause lies within the person: an instinct is stimulated, forces are brought together, and are demobilized in the act of laughter. Animals can and do laugh, although facial anatomy prevents their expression of it in the human manner. There is a discussion of humor as expressed in literature (Falstaff is considered the ideal humorous character, with Panurge ranking second) and a consideration of the nature of art, with some ingenious criticisms of Shakespeare's plays.—*L. M. Hatfield* (Maine).

1406. Missriegler, A. [The dream as barometer of the analytic situation.] *Psychoanal. Praxis*, 1931, 1.—Cases are enumerated of daily dream interpretations as indicative of a patient's mood and toleration of analysis of deep-lying conflicts. This is only one of several instruments available, but valuable in certain restricted situations. The author states his

technique in detail.—*C. P. Armstrong* (N. Y. C. Children's Court).

1407. Morgenstern, S. *Conceptions psychanalytiques de la dépersonnalisation*. (Psychoanalytic conceptions of depersonalization.) In *L'Evolution Psychiatrique*. Paris: Maloine, 1931. Pp. 83-102.—The author discusses the cases of three depersonalized patients from the point of view of psychoanalysis.—*Math. H. Piéron* (Sorbonne).

1408. Morgenthaler, W. *Ueber populäre Charakterdiagnostik*. (Popular character diagnosis.) *Schweiz. med. Woch.*, 1930, 60, 912-914.—The author gave 10 women a characterological diagnosis (based on the shape of the head) which a well-known lecturer had made of a given person. The diagnosis was presented to the women as the author's attempt at a characterological profile of each of them. Each had to judge herself according to a scale of points as having or not having the 26 traits of character which the profile included. On an average, 70% of the traits were accepted as present. The traits which were most readily accepted were those which flattered the personality, while the less desirable ones were often rejected. The author sees in this result the effect of the diverse meanings of the concepts used in making a profile, the existence of exceedingly varied dispositions in the majority of normal individuals, and the action of group unconsciousness, following the ideas of C. G. Jung.—*M. R. Lambercier* (Geneva).

1409. Moss, F. A. *Transient changes in personality*. Chicago: Univ. Chicago Press, 1932. Pp. 9.—A radio lecture concerning the influence upon personality of illness, fatigue, loss of sleep, glandular imbalance and drugs.—*N. L. Munn* (Pittsburgh).

1410. Schwab, —. *Zur Entlarvung des Mediums Stanislava P.* (The unmasking of the medium Stanislava P.) *Zsch. f. Parapsychol.*, 1931, 6, 365-373.—The author points out that despite the successful unmasking of the medium Stanislava (in his experiments on teleplasm) former performances must be characterized as thoroughly genuine. From films on hand he demonstrates the difference between real teleplasm and that produced through sleight-of-hand.—*W. Nolte* (Berlin).

1411. Silverberg, W. V. *Notes on the mechanism of reaction-formation*. *Psychoanal. Rev.*, 1932, 19, 56-63.—These notes are based on material from two dreams from one patient, a man in the early thirties, who had suffered from the age of ten or eleven from compulsive brooding and doubts. After his return from the war, these symptoms became much intensified; he was constantly worried over being unable to recall exact details about things he had seen or was seeing. In analysis, he showed most of the typical obsessional mechanisms: ambivalence toward both parents, particularly the mother; a castration wish against the older brothers and father, and a compensatory fear of his own castration. In his dreams, he showed two different ways of reacting toward his hatred of the depriving father. In the first dream,

there was direct aggression, with an ensuing feeling of guilt and anxiety; in the second dream, the aggression was indirectly expressed and immediately covered up by an opposite attitude of submission. The latter reaction is usually called reaction-formation. The order of succession of the dreams throws some light on why reaction-formations occur and their meaning. In a reaction-formation, the original feeling is expressed in terms of its reverse. We see in the first dream that the original expression of the feeling caused guilt and anxiety to follow. The patient could not be happy and comfortable in expressing his hostility. That is, the original expression of the aggression and hatred evokes punishment from the super-ego (sense of guilt) and anxiety from the ego. The ego therefore modifies the expression, disguising it as its opposite, which must be acceptable to the super-ego. Thus it appears that severe anxiety is the cause of reaction-formation.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1412. Stekel, W. The technique of psychoanalysis. *Psychoanal. Praxis*, 1931 (Feb.), No. 1.—The first of a series, this article discusses rapport with the patient and practical items at the beginning of the analysis. The analyst is warned against assurances to the patient of cure, though he may admit its possibility; against taking literally all the patient's first remarks; against displaying his understanding of the illness, as the neurotic has an esoteric resistance to facing reality accompanied by an exoteric wish to be understood. The analyst is advised to require a test week preliminary to accepting the case, when as a passive listener he evaluates the emotional situation and the possibility of a working transference. Cases undergoing treatment upon the insistence of others may be of doubtful prognosis because of a strong will to illness. The author doubts the existence of the Freudian unconscious and denies to the patient using hypnosis and suggestion, though he admits using both under certain circumstances. Merely elucidating the conflicts to the patient is useless without an emotional process of understanding due to the analysis. The mental scotomization (synonymous with the Freudian repression) is less difficult to eradicate than the complex still fixed in fantasy and allegedly vanquished. At this point an individual of inferior stability may seek refuge in a psychosis.—*C. P. Armstrong* (N. Y. C. Children's Court).

1413. Stekel, W. Analysis of a case of dyspareunia by means of dream interpretation. *Psychoanal. Praxis*, 1931 (Feb.), No. 1.—To illustrate his active method as well as the influence of early impressions, the author describes a neurotic whose case was of doubtful prognosis, since she undertook analysis only at the insistence of her husband. A schizoid personality hesitating between duty and temptation, as well as past, present and future trends, were revealed in a key dream. The neurosis was due to disappointment in an ideal of adolescence. The author believes with Kretschmer that pubertal conflicts are more responsible for neuroses than is

the earlier Oedipus complex. After discussing the adolescent conflict and facing the current emotional situation as brought out by the analysis, the neurosis was cured.—*C. P. Armstrong* (N. Y. C. Children's Court).

1414. Szűcs, G. A lélekelemzés népszerű ismertetése. *Népszerű orvosi szakkönyvtár*. Budapest, 1932. Pp. 43.—A short exposition of Freud's psychoanalytical therapy as well as (in the last chapter) of the non-psychoanalytical psychotherapeutic methods. A cautious restriction of the analytical proceedings is urged on forms of nervous and mental diseases till now curable only by psychoanalysis. The author knows and allows also suggestive, sanatorial, physical and chemical methods for easy cases, emphasizing that with really neurotic ones suggestion only reinforces the power of the super-ego in its struggle against the instinctive tendencies, so aiding the repression (*Verdrängung*). The methods of Adler and Jung are essentially not psychoanalytical, but merely suggestive and educational; that of Stekel the general intuitive medical proceeding of the physician who occupies himself profoundly with his patient, but which is only helpful if, accidentally, he is also a real master of his craft. "Wild analyst" physicians are less fit for the art of analysis than laymen whose territory is especially that of curative pedagogy, and who in Hungary are treating patients only with medical control. Physicians, before beginning their analytical practice, must in any case be analyzed, and must then study the practice of analysis on special clinical material with the help and control of practised analysts.—*P. Ranschburg* (Budapest).

1415. [Various.] Tehetségproblémák. (Problems of talent.) (13 lectures before the Hungarian Society for Child Research and Practical Psychology.) Budapest, 1930. Pp. 181.—Preface: general problems of faculty, by Marguerite H.-Révész. Biology of talents, by L. Szondi. Psychology of talents, by Edith Lénárt. Psychoanalysis of talent, by Imre Hermann. Talent and individual psychology, by Stephen v. Máday. Psychopathology of talent, by L. Balassa. The chief factors of the evolution of talents, by Ladislav Nagy (¹). The psychology of the scholar, by Marguerite H.-Révész. The poet, by Desid. v. Kosztolányi. The plastic artist, by K. Kernstock. The musical talent, by Marg. Varró. The organizer, by Francis Rajniss. The protection of talent from the standpoint of family and school, by Marthe M.-Nemes. The destiny of talents and society, by Sándor v. Imre.—*P. Ranschburg* (Budapest).

1416. Watson, J. B. How to grow a personality. Chicago: Univ. Chicago Press, 1932. Pp. 9.—A radio address concerning the factors involved in the development of personality.—*N. L. Munn* (Pittsburgh).

[See also abstracts 1330, 1480, 1489, 1490, 1593, 1631, 1650.]

NERVOUS AND MENTAL DISORDERS

1417. Abély, X., & Truche. — *Exhibitionnisme conscient sans caractère érotique.* (Conscious exhibitionism without erotic character.) *Ann. méd.-psychol.*, 1931, 18, 141-145.—A case of a man of 60 years, who was a constitutional psychasthenic, and who performed his first act of exhibitionism as an act of purification of thought, with no sexual satisfaction.—E. B. Heim (Provo, Utah).

1418. Armitage, D. M. *A challenge to neurasthenia.* (2d ed.) London: Williams & Norgate, 1931. Pp. 64. 1/6.—Written as a tribute from a former patient to the memory of L. S. Barnes, a general practitioner, this book reports the psychological methods he used in the treatment of psychoneurotics. These constitute a coupling of the persuasive technique (well known to psychiatrists) with a working theory which comes near to that of demoniacal possession.—L. M. Hatfield (Maine).

1419. Barbe, A. *Psychiatrie.* (Psychiatry.) Paris: Masson, 1931. Pp. 350.—A manual designed for students, one section being specially devoted to psychological disorders.—Math. H. Piéron (Sorbonne).

1420. Baruk, H. *Les obsessions.* (Obsessions.) *Bull. méd.*, 1931, 45, 687-700; 708-717.—The author divides obsessions into two groups, constitutional and acquired obsessions. He stresses the psychological disturbances, often associated with the obsession, which are found in the guidance and control of the stream of thought.—Math. H. Piéron (Sorbonne).

1421. Baruk, H., & Albano, A. *Catatonie intermittente suivant le rythme du sommeil.* (Intermittent catatonia following the rhythm of sleep.) *Ann. méd.-psychol.*, 1931, 89, 439-446.—A case history is given of a woman who is normal during the day, but goes into a catatonic state upon retiring at night.—M. B. Mitchell (George School, Pa.).

1422. Benedek, L. *A cselekvő eugenikának és a pszichiatriának öröklésbiológiai és orvosi vonatkozásai.* (Hereditary-biological and medical relations of active eugenics and psychiatry.) *Monatsch. ungar. Med.*, 1931, 10, 1-72.—(1) Defense of communities against abnormal (antisocial) individuals. (2) The Oneida primitive-communism. (3) The methodology of the science of inheritance (genetics) and the psychological types generally. (4) Socio-economic reasons for eugenic activity. (5) Evolution of the methodology of genetics; the period of individual statistics. (6) Value of the knowledge of the newer methods; progressive cerebration. (7) Orthogenesis; psychoses of animals. (8) Crisis of mathematics. (9) Importance of eugenical points of view; conditions of research in the heredity of mental diseases and inferiorities; (a) heredity in schizophrenia; (b) in manic-depressive disorders; (c) in Huntington's chorea; (d) in epilepsy; (e) in imbecility; (f) in psychopathic conditions.—P. Ranschburg (Budapest).

1423. Berlit, B. *Erblichkeitsuntersuchungen bei Psychopathen.* (Study of heredity in psychopaths.)

Zsch. f. d. ges. Neur., 1931, 134, 882-498.—(Bibliographia Eugenica).

1424. Beuter, J. B. *Die Behandlung der an psychischen Zwang Leidenden.* (The treatment of compulsive patients.) Freiburg i. Br.: Caritasverlag, 1931. Pp. 36. M. 0.50.—A. Römer (Leipzig).

1425. Bieber, J. *Die Stellung des Hilfsschulkindes zur Musik.* (The attitude of the auxiliary school child toward music.) *Hilfsschule*, 1931, 9, 558-562.—The author concludes from her own investigations of auxiliary school children and adolescent psychopaths that their attitude toward music is comparable to that of primitive peoples. They show a preference for the rhythmical elements of music as contrasted with the tonic elements, and of these they prefer dull, gloomy tones or high, shrill, dissonant tones. Music exercises a direct influence on the emotions and drives.—W. Nolte (Berlin).

1426. Chevens, L. O. F. *The correlation of cause of death with type of insanity.* *J. Ment. Sci.*, 1931, 77, 562-572.—A study of 768 cases of death occurring within the period 1910-1931. Evidence is here given that individuals with similar types of mental disorders tend to react to their environment in a manner peculiar to their type, in both mental and physical spheres, and that this specific tendency of each group may be traced even as far as the mode of death. In general the findings confirm the theory of W. A. White that schizophrenics display an inability to react to chronic infections, especially tuberculosis (showing little tendency to fibrosis, thus comparing fibrosis at the somatic level with compensation at the psychic level), and that paranoid cases are liable to die from malignant growths (comparing a delusional system which grows at the expense of the personality with a group of cells growing at the expense of the body). Other correlations found were between: primary pneumonia, colitis and dysentery and the epileptic imbeciles; epilepsy and the epileptic insane; cardiac disease and chronic nephritis and the melancholics and paranoid cases. A table of the average age at death of the various types of insanity is given. Among points of interest in the investigation: during the decade 1921-31, as compared with the preceding decade, tuberculosis, colitis and dysentery greatly diminished as causes of death (coincident with substantial increase of butter, bacon and porridge in the diet of the patients involved and with the introduction of open-air treatment of cases of tuberculosis); during the same period the percentage of deaths from malignant growths rose from 3 to 7%, a similar increase showing itself in the population at large.—L. M. Hatfield (Maine).

1427. Claude, H., Baruk, H., & Porak, R. *Sommeil cataleptique et fonctions psycho-motrices. Etude physiologique et pharmacodynamique au moyen de l'ergographe de Mosso.* (Cataleptic sleep and psycho-motor functions. Physiological and pharmacodynamic study by means of Mosso's ergograph.) *Ann. méd.-psychol.*, 1931, 89, 432-

439.—Cataleptic patients produced ergograph records with the initial curve of trapezoid shape, followed by the regular parabolic and fatigue curves of normal individuals. When certain sedatives were administered to normal subjects in such small doses that the effects were barely perceptible, the same initial trapezoidal curve was obtained. It was not obtained with other types of patients, neither those with neurological diseases, especially those with Parkinson syndromes, nor with those in a state of mental depression.—*M. B. Mitchell* (George School, Pa.).

1428. Claude, H., & Nacht, S. *Remarques sur les conditions psychologiques précédant l'installation d'un état de catatonie.* (Remarks on the psychological conditions preceding the induction of a catatonic state.) *Ann. méd.-psychol.*, 1931, 89, 409-418.—A case history is given of a woman diagnosed as catatonic dementia praecox. According to her own statements and those of her brother, she was hypersensitive as a child, and found it impossible to adapt herself to the realities of life. After her father's death she became quite helpless, but improved under psychoanalytical treatment. Later, however, she gradually became catatonic. The question was discussed whether the childhood condition was the cause or effect of her later condition. The authors maintained that it was the cause.—*M. B. Mitchell* (George School, Pa.).

1429. Coleman, S. M. *The pre-psychotic schizoid: a character study.* *J. Ment. Sci.*, 1931, 77, 804-818.—This study of the family and personal history of a youth who at 22 developed schizophrenia shows that the father as well as other members of the family evinced schizoid manifestations, and the mother was unstable and emotional. The author points out that it is practically impossible to evaluate the relative importance of heredity and unhealthy home circumstances. Modern psychiatry recognizes multiple causal factors leading to mixed psychoses; hence this attempt to assess the etiological factors of the disease. The patient has mild physical stigmata—small stature, oxycephalus (according to Kraepelin indicative of degeneration)—and he fits into Kretschmer's dysplastics, a type especially prone to schizophrenia. Psychologically his personality type, with the marked ambivalent attitude towards himself, suggests dementia praecox if subjected to stress. The significant mental stresses are the psychological effect of his small stature, giving rise to conflict and ideas of inferiority as shown in his delusions which attempt to compensate; a fear complex from the world war; and objections to going into his father's office in a prosaic, provincial town, so different from his successful university career. McDougall best explains such mental breakdowns as a lack of essential integration of the whole system of mental functions, which is the product of character formation, all under the dominance of the sentiment of self-regard. The patient, continually in conflict between the real and the "might have been," between the ego and the ego-

ideal, was frustrated in all contacts with reality, and, becoming increasingly introverted, lived in fantasy, which is bound to lead to regression. A psychoanalytic explanation is also given. A short bibliography is appended.—*C. P. Armstrong* (N. Y. C. Children's Court).

1430. Cotton, E. *Keeping mentally alive.* New York: Putnam, 1931. Pp. x + 306. \$3.00.—This book is written in order to help the reader to change his life from "one long round of humdrum activity" to one which widens with the years and is accompanied by a winning of new friends, new activities, new contacts and new interests. It discusses development of conversation, reading habits, good habits of leisure, dinner table topics of conversation, etc.—*F. J. Gaudet* (Dana).

1431. Delmas, F. A. *Les rapports de l'hypochondrie et de la constitution paranoïaque.* (The relations of hypochondria and the paranoiac constitution.) *Ann. méd.-psychol.*, 1931, 89, 1-7.—A clarification of the concept of the paranoiac constitution based upon *Leçons Cliniques* by M. Séglas.—*R. G. Sherwood* (Redmond, Washington).

1432. d'Heucqueville, G., & Neoussikine, B. *Valeur sémiologique des mouvements anormaux de la queue du sourcil: étude clinique et électrique.* (Symptomatological value of abnormal movements of the end of the eyebrow; clinical and electrical study.) *Ann. méd.-psychol.*, 1931, 89, 459-467.—In normal subjects the internal and external fasciculi of the frontal muscle contract at the same time and the chronaxy of the external fasciculus is approximately twice that of the internal fasciculus. Schizophrenic and feeble-minded patients are the only ones to show abnormalities in these muscles. The clinical aspect of this abnormality is usually a permanent contracture of the external fasciculus or jerky movements of the end of the eyebrow, but occasionally there is a voluntary contraction of one or both of the external frontal fasciculi. These patients also show an abnormality in the chronaxy of these muscles; the chronaxies of the internal and external muscles are practically identical. Partially demented patients in whom no clinical signs are observed of abnormal facial expression, when tested electrically show a partial degeneration. The chronaxy of the external fasciculi of the frontal muscles is larger than that of the internal, but not as much larger as is found in normal subjects. Bibliography.—*M. B. Mitchell* (George School, Pa.).

1433. Dufourmental, —, & Largeau, R. *Automatisme mental délirant au cours d'une sinusite frontale double à évolution lente chez un ancien traumatisé du crâne.* (Delirious mental automatism during the course of a double frontal sinusitis evolving slowly in a patient with an old head trauma.) *Ann. méd.-psychol.*, 1931, 89, 454-458.—Delirium developed in a male patient three years after a head trauma. The left frontal sinus was found to be opaque. Two operations relieved the symptoms completely after six months' duration.—*M. B. Mitchell* (George School, Pa.).

1434. Ey, H., & Lacan, J. Parkinsonisme et syndromes démentiels. (Protrusion de la langue dans un des cas.) (Parkinsonism and demential syndromes; protrusion of the tongue in one case.) *Ann. méd.-psychol.*, 1931, 89, 418-428.—One patient with a history of scarlatina, which was probably encephalitis, showed a simple dementia and spasmodic protrusion of the tongue, along with a Parkinson syndrome. The other patient had a definite history of epidemic encephalitis followed by a dementia resembling paranoid dementia praecox, with a Parkinson syndrome.—M. B. Mitchell (George School, Pa.).

1435. Forel, O. L. Les toxicomanies. (The toxicomanias.) *Ann. méd.-psychol.*, 1931, 89, 362-396.—This article deals with toxicomanias due to the use of all kinds of drugs and alcohol. The cause of their use may be morphological or constitutional, but very often there is an affective or conflict neurosis from which the patient is seeking a relief. Several examples are given, followed by a section on therapeutics. Bibliography.—M. B. Mitchell (George School, Pa.).

1436. Guiraud, P., & Caron, M. Syndrome démentiel présénile avec écholalie (parente avec les syndromes pseudo-bulbaire et catatonique). Presenile dementia with echolalia, similar to the pseudo-bulbar and catatonic syndromes.) *Ann. méd.-psychol.*, 1931, 18, 160-165.—The patient is a man about 50 years old, in whom the dementia is progressive, with stereotyped ideas and perseveration, complete lack of orientation, and profound amnesia. Two new symptoms appear: echolalia, facial spasms. Palilalia, echolalia, and echographia develop; when one attracts his attention, the patient takes on a strange expression between laughter and tears, which persists indefinitely. Observations were taken at 52 years and at 55 years, the case being progressive and ending in death. In its progress (1) the palilalia disappeared and absolute mutism took its place, (2) there was coexistent amimia.—E. B. Heim (Provo, Utah).

1437. Hadlich, H. Schizophrenie Denkstörung. (Disturbances in thinking in schizophrenia.) *Psychol. Forsch.*, 1931, 15, 359-373.—Nine cases of schizophrenia which were neither markedly catatonic nor hebephrenic, and so were approachable for the author's purposes, were asked to explain the meaning of 6 proverbs and of 6 fables. The author's interest is not in a statistically reliable investigation of schizophrenia, but in giving a qualitative analysis of certain disturbances in the thought processes of schizophrenia. The stenographic notes for many of the observations are given in detail. Analysis shows that the most characteristic trait of this type of thinking lies in the patient's inability to concentrate on the problem as a whole. In normal solutions of such problems we experience an insight into the hidden thought. The schizophrenic patients fail to arrive at the meaningful relationships between the single words, phrases, etc. This is particularly clear from the analysis of one patient's explanation of the same proverbs, first during a remission of the

disease, and second during one of the pathological phases. Studies of this kind should be important for the analysis of thought processes during fatigue, during the period of falling asleep, and for the psychology of wit.—J. F. Brown (Colorado).

1438. Heuyer, G. Les troubles de la sociabilité en médecine mentale. (Disorders of sociability in mental therapy.) *Gaz. méd. de France*, 36, 597-605.—The author reviews the different sociability disturbances. They are of two kinds: an incapacity in the patient to provide for his own needs, a thing which prevents him from living a normal social life; and an unsociability due to character disturbances, that is, due to tendencies of affective nature which govern the individual's reactions to his environment.—Math. H. Piéron (Sorbonne).

1439. Heuyer, G. Les principes de neuro-psychiatrie infantile. (The principles of child neuropsychiatry.) *Hygiène ment.*, 1931, 26, 185-197.—The author's purpose is to show how very important is a knowledge of the stages of psychological evolution in children and the laws governing this evolution. He considers three points of special interest in the education of children: during the first three years, one must watch the date of the appearance of the various neurological signs; from three to six, education ought to be chiefly sensory and sensori-motor; and, finally, one should pick out as soon as possible the various types of character in the child, for, though it may be impossible to modify these characteristics, one should try, at least, to adapt them to the environment in which the child lives and, furthermore, try to adapt the environment to these characteristics.—Math. H. Piéron (Sorbonne).

1440. Kovarsky, V. Le profil psychologique de quelques aliénés. (The psychological profile of some insane people.) *Ann. méd.-psychol.*, 1931, 89, 246-251.—Recommending a psychological as well as a medical examination to determine the type of insanity. Charts.—R. G. Sherwood (Redmond, Washington).

1441. Kyriaco, —, & Pouffary, —. Alexie et paraphrénie chez une délirante. (Alexia and paraphrénia in a deluded patient.) *Ann. méd.-psychol.*, 1931, 89, 257-262.—Case report.—R. G. Sherwood (Redmond, Washington).

1442. Lahy, J. M., & Heuyer, G. Dépistage des psychopathies chez les écoliers. (The determination of psychopathy in school children.) *Hygiène ment.*, 1931, 26, 197-203.—The author endeavored to pick out cases of psychopathy in 157 subjects (boys from communal schools in the city of Paris), using psychological tests and clinical examinations. These two methods of investigation were supplemented by the opinions of the instructors. Since there was nearly complete harmony between the results from the psychological and clinical examinations, it was found that the former, which could be given much more quickly, could be used to determine roughly the psychopathic cases, the individual clinical examination being reserved for the doubtful

cases or for those of particular interest.—*Math. H. Pédron* (Sorbonne).

1443. Lange, M. Orthopädie und Neurologie. (Orthopedies and neurology.) *Fortsch. d. Neur., Psychiat. u. Grenzgeb.*, 1931, 3, 413-425.—The author discusses (1) the treatment of spondylitis tuberculosa (Pott's disease) with and without symptoms of spinal cord lesions, (2) the numerous and often obscure causes of back-ache and their proper treatment, and (3) differential diagnosis between muscular rheumatism and neuritis and the technique of treating the former by massage. Two pages are devoted to bibliography.—*M. F. Martin* (West Springfield, Mass.).

1444. Leeper, R. R. Some reflections on the progress of psychiatry. *J. Ment. Sci.*, 1931, 77, 683-691.—The address reviews the progress of psychiatry in Great Britain, beginning with the establishment by Hiteh in 1841 of this (Royal Medico-Psychological) Association, which inaugurated the training of mental nurses in all the British Empire, as well as the university diploma in mental disease. The first step in the care of the insane in Ireland was taken by Swift, who founded St. Patrick's hospital, the first hospital for mental cases, in 1745. Is satisfactory progress shown today in the classification of insanity due primarily to hereditary effect? The president scores the analyst, the dream-interpreter, "latter-day apostle of astrology and necromancy"; the extreme proponents of the toxic foci theory with its violent remedies, ultra-violet radiation, electrical treatment and sedatives—when not moderately administered. The new methods show no better results than the old. In Ireland the average recovery rate for the decade 1910-1919 was 39%; in the last decade, 38%. In England and Wales, 32% and 31% respectively. St. Patrick's hospital reports 50% recovered in the last decade, with a further 12% discharged as relieved, due to conservative methods—specifically rest, mental and physical, in the early stages, and stimulation, especially by recreation, in the later. For the future there remains the development of biochemistry, of research in clinical psychiatry, and of preventive work with mild mental illness.—*C. P. Armstrong* (N. Y. C. Children's Court).

1445. Mallet, R., & Male, P. Délire cénesthésique (prurit hallucinatoire). (Cenesthetic delusion—hallucinatory pruritus.) *Ann. méd.-psychol.*, 1931, 89, 272-274.—Case report.—*R. G. Sherwood* (Redmond, Washington).

1446. Marchand, L. Deux cas de démence avec épilepsie. (Two cases of dementia with epilepsy.) *Ann. méd.-psychol.*, 1931, 89, 274-280.—*R. G. Sherwood* (Redmond, Washington).

1447. Marchand, L., & Fuller, H.-A. Pétichisme du pied chaussé. Hérédosyphilis. (Fetishism of a clad foot. Hereditary syphilis.) *Ann. méd.-psychol.*, 1931, 89, 447-452.—A patient with hereditary syphilis from the age of seven took great satisfaction in being stepped upon, especially when the foot

was covered by a shoe which he particularly liked. At the age of puberty he had his first real orgasm when stepped upon by a young girl. Even after marriage, being stepped upon was his only source of sexual satisfaction for some time. After his wife suffered a nervous disorder, he followed the advice of his physician and was able to have normal sexual relations. However, after his wife died following a miscarriage, he reverted to his old fetishism.—*M. B. Mitchell* (George School, Pa.).

1448. Marchiafava, E. L'ittero letale "ex emotione." (Fatal ieterus "ex emotione.") *Policlinico*, 1931, 48, 1771-1776.—The author reports two cases of ieterus from emotion which have been described by G. B. Morgagni. He also reports three cases of jaundice, ending fatally, which he had observed himself and which had been psychologically significant. He brought up further disturbances in these cases.—*A. Angyal* (Turin).

1449. McCowan, P. K., & Quastel, J. H. Blood-sugar studies in abnormal mental states. *J. Ment. Sci.*, 1931, 77, 525-548.—A study of the sugar tolerance curves of 85 psychotic subjects reveals the following facts in regard to the hyperglycemic index (H. I.), which is defined as a quantitative measure of the departure of a sugar tolerance curve from that found normally (and is an expression of the sustainment of hyperglycemia found in many psychotic cases): (1) in the manic-depressive group there is the closest parallelism between the magnitude of the H. I. and the emotional tension of the patient; (2) in the schizophrenic group there is a relatively low incidence of patients showing an index consistently greater than 50; high figures in this group are associated with toxemia, endocrine imbalance or other physical disorder; (3) in cases of mania a low index is recorded, except when the excitement is accompanied by an aggressive, paranoid mood; (4) in cases of benign stupor a low index has been recorded, showing that the defense mechanism of the stupor reaction has abolished the emotional tension; (5) arterio-sclerosis per se is not a cause of a high H. I.; (6) during menstruation there is a departure from the normal sugar tolerance curve in both normal and psychotic cases. Practical use is made of the H. I. in determining prognosis, progress and recovery of the patient.—*L. M. Hatfield* (Maine).

1450. Miller, E. Modern psychotherapy. London: Cape, 1930. Pp. 131. 5s.—Psychotherapy, any form of healing by mental influence, is often unconsciously included by the physician in physical treatment. He would be more successful were he trained psychologically, though ability along such lines would vary greatly with the capacity of the physician and the types of patients. Analysis as employed by Freud, Jung and Adler is described, as well as hypnosis, hypno-analysis, suggestion, auto-suggestion and re-education. The author classifies the psychoneuroses and touches on the treatment of psychotics, drug addicts and alcoholics, emphasizing early treat-

ment and prevention.—C. P. Armstrong (N. Y. C. Children's Court).

1451. Minkowska, —. La constitution epileptoïde et ses rapports avec la pathogénie de l'épilepsie essentielle. (The epileptoid constitution and its relation to the pathogenesis of essential epilepsy.) *Ann. méd.-psychol.*, 1931, 89, 291-300.—A categorical reply to critics of the concept of epileptoid constitution.—R. G. Sherwood (Redmond, Washington).

1452. Miskolczy, D. Konstitució és agybetegségek. (Constitution and diseases of the brain.) *Orvosképzés*, 1930, No. 6.—Constitution is the total of bodily and psychical (both normal and morbid) qualities transmitted by heredity, i.e., in purely endogenous ways. According to Schaffer, classification in neurology as well as in psychiatry can be made in the direction of either neuropathic or psychopathic digression from normality. Neuropathic constitution includes the organic diseases, such as spastic heredo-degeneration, extra-pyramidal constitution, etc., as well as the morbid reactions of functional character, such as the spasmodic, delirious, or neurasthenic constitution, and finally the psychopathic constitution represented by cycloid, schizoid, hysteroid, epileptoid, paranoid and oligophrenic types of constitution. The united application of etiologic and genetic principles of research yielded constitutional pathology including the results of psychopathology, psychology, characterology, and humoral pathology. There is no crisis in medical science; by means of genetics, serology, pathology and biochemistry we are approaching the noblest goal of medical science, prophylaxis.—P. Ranschburg (Budapest).

1453. Montassut, M. La fatigue du neurasthénique. (The fatigue of the neurasthenic.) In *L'Evolution Psychiatrique*. Paris: Maloine, 1931. Pp. 55-80.—Math. H. Piéron (Sorbonne).

1454. Ott, E. Trieb und Geist in der psychotherapeutischen Literatur. (Instinct and spirit in the psychotherapeutic literature.) *Theol. Rundsch.*, 1931, 3, 179-205.—A. Römer (Leipzig).

1455. Petersen, S. Sur les types de Kretschmer: les psychoses mixtes et les caractères prépsychotiques. (On the Kretschmer types: mixed psychoses and prepsychotic characteristics.) *Encéph.*, 1931, 26, 121-132.—The author made a study of the relation between the physical conditions and the character of patients suffering from schizophrenia and paranoia. In his morphological examination, the author was limited to an optical study of forms without measurement. Nine of these pathological cases are described. It was found from this study that nothing which the author observed in Claude's clinic proved to run counter to Kretschmer's ideas on prepsychotic characters or to his theory that the individual is only a link in a long line of descent extending throughout whole generations.—Math. H. Piéron (Sorbonne).

1456. Petit, G., & Martille, D. Anémie, paralysie et syndrome hémiphreno-catatonique. (Anemia,

paraplegia and the hebephreno-catatonie syndrome.) *Ann. méd.-psychol.*, 1931, 18, 131-140.—The clinical observation of a hebephreno-catatonie syndrome, accompanied, after an evolution of more than twenty months, by a paraplegia, associated to a notable degree with anemia.—E. B. Heim (Provo, Utah).

1457. Phillips, N. R. Mental disorders associated with pernicious anemia. *J. Ment. Sci.*, 1931, 77, 549-554.—In addition to the three generally recognized main clinical manifestations (as a blood disease, as a gastro-intestinal disease, or as a nervous lesion) there is ample evidence that pernicious anemia, as also the secondary anemias, manifests itself also by the occurrence of mental disorder. The degree of mental affection varies in different cases: from merely a modification of character to psychoses, the paranoid type being the most frequent. Delirium, especially at night, is very frequent. These mental symptoms, curable by modern methods, may be so pronounced as to obscure the original blood disease.—L. M. Hatfield (Maine).

1458. Pollock, H. M. A statistical review of convulsive disorders in the United States. *Amer. J. Psychiat.*, 1931, 10, 655-661.—The review attempts to answer questions as to: (1) proportion of the general population suffering from convulsive disorders; (2) number of such patients cared for in institutions; (3) annual rate of incidence of these disorders; (4) their relative prevalence in urban and rural districts; (5) the relative prevalence in the two sexes; (6) are these disorders increasing?—S. J. Beck (Boston Psychopathic Hospital).

1459. Ranschburg, P. A paralysis progressiva lázkezelésének therapiás értéke. (Therapeutic value of fever treatment in general paralysis.) *Orvosi Hetilap*, 1931 57, 1-34.—I. Introduction. II. Alterations of blood serum and cerebrospinal fluid. III. Purely neurological alterations. IV. Results of psycho-neurological investigations of fever treated paralytics. 1. Logical memory of word connections as an index of capacity of mental performance. Experimental investigation of immediate and retentive memory of pairs of logically connected words is a good psycho-neurological diagnostic and prognostic instrument which, as opposed to humoral and purely neurological methods, is able to illuminate immediately associative, retentive and reproductive functions of the highest cortical regions of the central nervous system, as well as to express numerically very sensitively their deterioration or its standstill in the different phases of the illness, particularly its treatment, and make them comparable with fixed standards or prognosticate their further course with an approximate probability. 2. Arithmetical functions recover very slowly and generally do not reach their former limits for many years after the treatment (Irene Kaufman). The principal reasons for this are (1) the impaired memory for single and grouped numbers and figures. (2) The insufficiency of concentration of attention working continually. (3) Psychomotor abilities. The more specific faculties mostly recover sufficiently. (4) Feeling, will,

temperament, character generally recover in connection with intelligence, but in a limited number of cases there is to be seen with certainty an independence of the affective conditions from intellectual processes. Psychotic complications, if of manic-depressive character give a good, if schizothymic a bad prognosis. (5) Dependence of the psychocerebral improvement on the degree and amount of fever. The total of hours in fever above 39° C. is called by the author the critical total. With malaria it was on the average 92.5, with other methods (pyrifer, neo-saprovitan, sulfolein, milk, etc.) only 23.5 hours. In 88.5% of cases the fever showed a spontaneously fatiguing type; only in 11.5% did the last three attacks show more critical hours than the first ones. As Irene Kaufman of the neurological department of the author showed in 1928, the improvement of intelligence (measured by the immediate as well as the retentive logical memory for words) increased with the total critical hours provoked by malaria. IV. Results of psychobiological examinations. 1. The ability to work and to earn after fever treatment. In the adequately controlled cases of malaria treatment 70% have become sufficiently and permanently able to work and to earn, whereas half of the other 30% have become moderately, the other half insufficiently or not at all able to earn their living even in the most modest conditions. This great number of excellently recovered cases is somewhat diminished by the consideration that 80.5% were earning their living before their illness under modest circumstances as joiners, shoemakers, barbers, clerks, small shop-keepers, stewards, etc. In any case logical immediate memory has improved in 91.3%, retentive memory in 82.6%, and this improvement has reached the bounds of normal behavior in about 60% of the ameliorated cases. Generally the ability of earning a living in the benign cases depends on the profession. The more intellectual this profession was before the illness, the greater the probability of the necessity of lowering the level of their occupation after the treatment. V. Amelioration of the faculty of earning and its dependence on age and pre-therapeutic psycho-neurological condition. 1. At any age fever therapy can improve the paralytic process. 2. Prognosis of practically valuable amelioration is considerably less favorable after than before 40 years. 3. There is a considerable correlation between the pre-therapeutic condition of immediate and retentive logical memory for pairs of words and the degree of the improvement. In contradiction to the grave purely neurological and humoral state, in a considerable number of cases it was exclusively the pre-therapeutic psycho-neurological condition, especially the mnemonic behavior of paralytics, which could have given a correct prognostication of the benignity and reversibility of the pathological alterations of the paralytical cortical processes. V. Average duration of life was unquestionably prolonged by malaria treatment. VI. Degree and durability of improvement depends in a considerable amount on the ma-

lignity or benignity of the paralytic process, depending itself on constitutional factors, age, general somatic condition, after-treatment behavior and conditions, as well as on the state of progression of the paralytic process at the beginning of treatment, manifesting itself most reliably in the psycho-neurological condition and behavior of patients.—P. Ranschburg (Budapest).

1460. Rodiet, A., & Conderc, L. Une observation de rire incoercible chez un débile mental. (An observation on uncontrollable laughter in a feeble-minded man.) *Ann. méd.-psychol.*, 1931, 89, 302-306.—R. G. Sherwood (Redmond, Washington).

1461. Rosett, J. Epilepsy as an exaggerated form of normal cerebral inhibition. *Amer. J. Psychiat.*, 1931, 10, 673-685.—Animal experiments, in which convulsions were artificially produced, are described. The author concludes: "The phenomena of the seizure, whatever the indirect underlying causes may be, are, therefore, directly caused by that process of interference of nerve impulses, with the result of their mutual extinction, which is known as inhibition. . . . Any condition whatever that will disturb the chemical, physical, or mechanical balance of the nervous system, may result in a facilitation of the normal process of cerebral inhibition, with the appearance of epileptic seizures as a result."—S. J. Beck (Boston Psychopathic Hospital).

1462. Schachter, M. Les troubles du psychisme de l'enfant encéphalique. (Disorders in the psychology of the encephalitic child.) *Prog. méd.*, 1931, 48, 1826-1829.—The author lays stress on the change brought about in the character and social behavior of children through encephalitis. Occasionally the intelligence is not affected, though it may show a deficiency going as far as idiocy. One often observes states of intense excitement or very clear-cut tendencies to commit offensive or criminal actions either at home or at school. Joy in doing wrong or in seeing a neighbor in trouble and a tendency to seek vengeance are very strongly developed. There is a strong resemblance between these disturbances and those in psychologically abnormal cases. This fact favors the hypothesis of an activation or accentuation of a congenital psychopathic predisposition, for it can be conceded that encephalitis clearly brings out inferiority in the basic psychological organization. It seems to the author that anatomical modifications at the level of the basal ganglia and of the thalamus and the vegetative centers of the floor of the third ventricle can explain both the psychological and neurovegetative syndromes which are so frequently associated in these patients.—Math. H. Piéron (Sorbonne).

1463. Schaffer, K. Fejezetek az idegrendszer kórtanából. (Chapters from the pathology of the nervous system.) *Orvosképzés*, 1930, No. 6.—Chapter I: Effects of endogenous and exogenous toxins on the nervous tissue. Chapter II: Optical myotonus. Chapter III: Psychopathy and genius. In his Korányi lecture the author uses as an example the

Hungarian genius Count Stephen Széchenyi, who although—not because—a *déséquilibré* of schizoid character from his childhood, and in his more aged years suffering an attack of amentia, and after a perfect recovery, dying many years later by suicide, was one of the most clear-sighted politicians and economists of Hungary; also Leonardo da Vinci, who notwithstanding his abnormalities of instinct was a genius in several fields.—P. Ranschburg (Budapest).

1464. Schiff, P., & Trelles, J. O. *Attaques toniques généralisées, avec crises de fureur, chez un encéphalitique.* (General tonic attacks, with manic crises, in an encephalitic.) *Ann. méd.-psychol.*, 1931, 89, 397-404.—Seven years after an attack of epidemic encephalitis, the patient developed crises after emotional shocks. During these he lost consciousness, became violent, and manifested a muscular tonus resembling decerebrate rigidity. Following the attack, he had amnesia for it and suffered with a violent headache. Between these attacks, he had attacks of catalepsy.—M. B. Mitchell (George School, Pa.).

1465. Schroeder, T. A "living god" incarnate. *Psychoanal. Rev.*, 1932, 19, 36-46.—A case study of a 35-year-old mulatto woman, which throws some light on the psychological mechanisms leading to development of mysticism in an individual. This woman suffered from inferiority feelings over her color, for which she compensated by desire to have a white baby. After allowing herself to be seduced by a white man, through her desire to produce a white child, she felt guilty for her sinfulness. She married a negro, but her attitude toward color prevented her from finding sexual satisfaction in this marriage. The sexual repression resulted in psychosexual tension, which found an outlet in autogenic sexual ecstasy which was considered by her as a "religious experience." She then rationalized her early sexual misconduct as crucifixion such as Jesus endured. It was an atonement for her sins. She had delusions of being one with God and set herself up as a religious leader. Her sermons were full of mystical ideas, especially that all life is part of God, because God is life, therefore God lives in each individual life. Hence, "I am God." Only through the mystical union with God could she feel that her sins were forgiven and be relieved of her feelings of guilt.—P. Blanchard (Philadelphia Child Guidance Clinic).

1466. Schulz, B. *Zur Genealogie des Mongolismus.* (On the genealogy of mongolism.) *Zsch. f. d. ges. Neur.*, 1931, 134, 268-324.—(Bibliographia Eugenica).

1467. Solomons, B. *Insanity and its relations to the parturient state.* *J. Ment. Sci.*, 1931, 77, 701-707.—An investigation of 54,000 cases of labor at the Rotunda Hospital, Dublin, revealed 81 cases of insanity (.15%). The number of cases of insanity to the number of births registered in the Free State from 1928 to 1930 was 162 to 175,730, or .09%.

Venesection should be employed in cases of high blood-pressure in order to avoid cerebral symptoms. Toxemia, sepsis and chorea are probably the chief predisposing factors in puerperal insanity.—C. P. Armstrong (N. Y. C. Children's Court).

1468. Stephenson, W. *Studies in experimental psychiatry: a case of general inertia.* *J. Ment. Sci.*, 1931, 77, 723-741.—Experiments with tests indicate a common factor (*p*) interpreted by Spearman as inertia. The *g*-factor is the available general mental energy, the *p*-factor the amount of inertia of this energy, both characteristic of any individual. The experiment recorded seeks an interpretation of this factor common to certain tests, explained in past experiments as a possible "continuance, subconscious or even completely unconscious and purely physiological, effect of a past experience" and shown by the degree of hindrance which the inertia effect of the past mental activity effects upon a similar new activity. The *p*-tests were administered to a patient, age 31, who had been a year in the hospital (first admission). She stands or sits with head down or averted, seeming oblivious to all extraneous matters, moving her lips as though talking to herself, and doing nothing else voluntarily. Audible speech is practically absent, responses after some time being by lip movements. Cooperation was secured and results are typical of many subjects. The theory of general inertia as above quoted is posited.—C. P. Armstrong (N. Y. C. Children's Court).

1469. Strauss, E. B. *Ein Beitrag zur Konstitutionsbiologie der Schwachmännigen.* (A contribution to the constitutional biology of the feeble-minded.) *Zsch. f. d. ges. Neur.*, 1930, 127, 225-239; *J. Ment. Sci.*, 1930, 76, 780-802.—(See V: 4166.)—(Bibliographia Eugenica).

1470. Szondi, L. *Konstitucionális analízis és értelmi fogyatékoság.* (Constitutional analysis and intellectual deficiency.) *Gyógyászat*, 1931, 1-30.—I. A. Constitutional analysis. Constitution is the harmony of bodily and mental shapes, measures, and manners of reaction varying from individual to individual. Methods of constitutional analysis are: 1. Analysis of shape, which can never be sufficient if only somatic. 2. Bodily measures and constitutional indexes allow a more profound examination of the individual structure than mere somatic analysis of shape. With nearly 1000 normal and 200 deficient children the best indexes of approaching puberty are the weight and the relative cranial circumference with boys and the relative sitting height with girls. 3. Psychic traits can be examined by Rossolimo's profile method, but can never be revealed by experimental, but only by psychoanalytical proceedings, which still do not give us the hereditary and biological share of personality. 4. Analysis of somatic forms of reaction is possible by means of the alimentary-glycemic reaction as well as of the basal metabolism, revealing to us with tonus of the vegetative-endocrine system, its constancy or lability, also the manner of individual psychic reactions. 5. The purely psychological ways of constitutional

analysis are Jaensch's eidetic researches. 6. Behavioristic types of constitutional analysis to be examined are apathic, anergic, torpid or irritable, and erethic. 7. Analysis of social behavior. B. Constitutional synthesis has to demonstrate the biological (total) value (*Gesamtwert*) of personality. Abnormals are to be judged by the total of their extreme qualities. Biologically extreme variations are in positive as well as negative cases inferiorities, i.e., bionegative varieties. The variability of a quantity is given by the mean and the standard deviation. Variation is extreme if its distance from M is greater than twice the standard deviation. 6. The individual or group is bionormal if without extreme qualities, i.e., if within the zone $M \pm 2\sigma$; bionegative if there are extreme qualities, and if bionegativity increases with the number of extreme varieties. Second part. With mentally deficient children the total of extreme varieties is relative to: (a) capillaries (archicapillaries, etc.), 65% (b) acceleration or delay of maturity of the skeleton, 33%; (c) deficient evolution of the testicles, 22%; (d) growth of the skull, 19.5%; (e) disturbances of bodily reactions, 15%; (f) disturbances of somatic growth, 15%; (g) cranial maturity, 12%. Further researches of the laboratory of Szondi have proved that: A 1. Among mentally deficient children there are a great many with archaic-primitive capillary forms, although there is no strong correlation between the degree of mental and capillary maturity and archicapillarity and skeletal immaturity. The correlation is also strong between extreme variants of skeletal maturity and those of eidetic behavior. Extreme disturbances of skeletal maturity are most frequent with gravely torpid defectives whose cranial development and growth in length likewise show extreme variants. The degree of skeletal maturity is a most important factor of biological value in deficient children. 2 (Dobák). A flat blood-sugar curve is probably a sign of a torpid-anergic psychical constitution. 3 (Lajta). No correlations were found between T- and B-type eidetics and tetanic or basodowoid constitution. Eidetism is a very important stigma of extreme variation in an individual. Besides endogenous disposition, the exogenous factors of eidetic constitution are those of increasing intracranial pressure. 4 (Sági). Adenoid vegetations are to be treated by means of X-rays. B 1 (Székács-Dobák). The biological significance of deficiency in children is the same for both boys and girls. 2. Bionegativity is highest with Mongoloids. 3. Biological loss of value is highest where deficiency derives from both endogenous and exogenous factors. The least loss of biological value occurs in the purely endogenous group of defectives. 4. Bionegativity is greater with pathocrine than with normocrine oligophrenes. 5. Decrease of biological value is paralleled by diminution of intelligence. Non-educable oligophrenes give the highest degree of bionegativity; the most educable (feeble-minded) are of the highest biological value. The torpid group are of less

biological value than the erethics.—P. Ranschburg (Budapest).

1471. Teulié, G. La schizophasie. (Schizophasia.) *Ann. méd.-psychol.*, 1931, 89, 113-123.—Certain psychologists and psychiatrists believe that language is the most perfect expression of thought, and admit even that a part of thought would not exist without language. Recently authors have begun to study in detail the modes of transformation of normal language into pathological language, the cases in which this transformation is produced, and its diagnostic and prognostic value. All deficit of thought is accompanied with a deficit of language; all dementia is incoherent. But just as there are several kinds of dementias, there are several kinds of incoherences, and, just as the final clinical aspect of the dementias is the same for all, the final clinical aspect of the incoherences is also the same for all. But the modifications of the language of the patient vary, and one can distinguish the following steps, corresponding to the progression of intellectual weakness: (1) normal language; (2) paraphasia (confusion of words); (3) jargonaphasia (confusion and alteration of words); (4) incoherence (speech which is not bound by any law). The various dementias are characterized by special language disorders. Schizophasia is the language (pathological) of dementia praecox. Schizophasic language completely developed has the linguistic characteristics of automatic language, but differs from it in that even if it possesses no sense for the auditor, it is the expression of the ideas of the patient. It is incoherent only in appearance. This pseudo-incoherent language is employed (except at the end of the illness) only in case of emotion or excitation, particularly in the course of a conversation on the delirious ideas. A detailed analysis of the language used follows, pointing out the grammatical and structural changes. The evolution of schizophasia passes through three phases: (1) mannerisms in the language, (2) pseudo-incoherence, (3) incoherence.—E. B. Heim (Provo, Utah).

1472. Teulié, G. La schizophasie. (Schizophasia.) *Ann. méd.-psychol.*, 1931, 89, 225-233.—A definition and explanation for the purpose of diagnosis and differentiation. Bibliography of 22 items.—R. G. Sherwood (Redmond, Washington).

1473. Thom, D. A. Epilepsy and its rational extra-institutional treatment. *Amer. J. Psychiat.*, 1931, 10, 623-635.—A survey of opinions as to the essential nature of epilepsy is presented. "At the moment, however, we are still in a state of darkness as to even the physiological mechanisms by which convulsions are produced," but the present state of the research in this field bears promise of fruitful results. The most stimulating conception of this disease, in the author's opinion, is that it is not a disease but a "symptom or a symptom-complex, and that it represents nothing more than an expression of some well-defined or perhaps rather obscure pathological condition." A program of treatment for non-insti-

tutional cases is outlined.—S. J. Beck (Boston Psychopathic Hospital).

1474. Tinel, J., & Baruk, H. Troubles du courant de la pensée et tumeur cérébrale. (Disturbances of the train of thought and cerebral tumor.) *Ann. méd.-psychol.*, 1931, 89, 234-245.—The report of a case in which a right subtemporal trepanation was performed, with resultant improvement of symptoms, but also with recurrence of symptoms upon increased intracranial pressure. Annotated.—R. G. Sherwood (Redmond, Washington).

1475. Toulouse, E., Courtois, A., & Rubenovitch, P. Syndrome de démence précoce consécutif à une fièvre typhoïde avec phénomènes délirants. (A dementia praecox syndrome following a typhoid fever with delirious phenomena.) *Ann. méd.-psychol.*, 1931, 18, 146-149.—This case seems to indicate that a mental sequel of typhoid can become a dementia praecox. A young man with defective antecedents had typhoid at the age of 17, with slight mental confusion. Immediately there were modifications of character, of judgment, and of capacity for work, then four months later an excess of excitation. For seven years there followed a progressive psychic deterioration, with inertia, indifference, semi-mutism, then mutism, catatonia, and finally the usual picture of dementia praecox. This case would be an example of inflammatory dementia praecox through encephalitis.—E. B. Heim (Provo, Utah).

1476. Toulouse, E., Marchand, L., & Courtois, A. Encéphalite psychosique aiguë au cours d'un érysipèle. (Acute psychotic encephalitis in the course of erysipelas.) *Ann. méd.-psychol.*, 1931, 18, 149-154.—In this case the mental troubles of confusional form appeared at the end of the infection (erysipelas of the face) and at the same time an infectious syndrome appeared with parotiditis. Death followed thirteen days after the end of the disease. The young woman was 38 years old, and had been interned previously (from 1920 until 1924). This case belongs in the group of acute encephalitis (with uremia).—E. B. Heim (Provo, Utah).

1477. Turner, F. D., & Penrose, L. S. An investigation into the position in family of mental defectives. *J. Ment. Sci.*, 1931, 77, 512-524.—The number of cases on which this study was made is too small to allow any very definite conclusions to be drawn. But in relation to what is known already from other sources and by comparison with other observations on the same lines, the evidence points to the conclusions that: (1) in low grades of amnesia the first-born child is somewhat more frequently affected than the other members of the fraternity; (2) in high grades of amnesia the defectives are more frequently found among the later members of the fraternity; (3) certain special groups of cases have their own peculiar distribution in the family: Mongols tend to come last, and cases with a history of difficult labor tend to come early; and (4) the data give no support to Goddard's hypothesis that mental

deficiency is due to a single recessive gene substitution.—L. M. Hatfield (Maine).

1478. Urechia, C.-I., & Retezcanu, A. Sur deux cas de psychoses cancéreuses. (Two cases of cancerous psychosis.) *Ann. méd.-psychol.*, 1931, 89, 467-470.—In both cases presented here, the psychosis was present only with anemia. When it was treated so that the number of red blood corpuscles became about normal, the psychosis disappeared. The cancer was only a secondary cause of the psychosis; it caused the anemia. After the anemia and psychosis were alleviated the patients died of cancer.—M. B. Mitchell (George School, Pa.).

1479. Winkelman, N. W. Cerebral trauma and its relation to mental deficiency. *Amer. J. Psychiat.*, 1931, 10, 611-621.—Cerebral trauma may contribute towards arrest of cerebral development in infants and deterioration in adults. Both types of cases may be improved by dehydration.—S. J. Beck (Boston Psychopathic Hospital).

[See also abstracts 1315, 1333, 1517, 1519, 1523.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

1480. Allport, F. H. Personality in our changing society. Chicago: Univ. Chicago Press, 1932. Pp. 8.—A radio talk on the relation of industrial society to personality.—N. L. Munn (Pittsburgh).

1481. Allport, F. H. Psychology in relation to social and political problems. In *Psychology at Work*. New York: Whittlesey House, McGraw-Hill, 1932. Pp. 199-252.—"Individuals contain within their habits of behavior that system which we call the social order." Our institutional behavior involves a partial inclusion, merely a segment, of the total individual personality. As soon as an organization of social behavior appears, "the emergence of common-segment alignments, with their encroachment upon the total inclusion of personalities, seems inescapable." Thus "society . . . is not the same as the self-expression of the individual." Social institutions are illusions. Thus public opinion is not a measurable entity independent of persons, but a psychological attitude inherent in individuals. The applications of this argument to law, education, government, and international relations are considered. Suggestive illustrations, derived from actual observations of human behavior (regard for caution when driving at street intersections under different conditions, parking times, religious attitudes) demonstrate that, when not institutionalized, behavior conforms to the normal curve of individual differences; but when institutionalized, it yields a J-shaped curve. The difference between the means of these two curves, determined relative to any given category of behavior, may be taken as its "index of institutionalization."—O. L. Harvey (Cambridge, Mass.).

1482. Aptekar, H. Anja: infanticide, abortion and contraception in savage society. New York: Godwin, 1931. Pp. xv + 192. \$2.50.—In the intro-

duction the author emphasizes the need of anthropological perspective and a rational and scientific philosophy in the study of birth control. He points out the importance of studying the causal and resultant implications of birth control because of its relation to the declining birth rate, to differential fertility, and to population theory and doctrine. In this book, in which he attempts to answer several elemental questions concerning the subject, he limits his discussion to the following practices: contraception, abortion, infanticide, and abstinence from sexual intercourse. He says that "Malthusian expediency" cannot adequately account for these usages, and that population pressure as one of the many causal factors can give only a partial picture of the situation. "These usages are not entities unto themselves, but are sustained by vast permutations of individual and social forces . . . which differ from group to group." Separate chapters are given to a discussion of each of the three primary birth control practices in primitive groups. The primary facts issuing from the study follow: (1) birth control has been found to be "almost universal"; (2) there is a high degree of probability that some form of birth control exists at every cultural level, though the causality may differ from level to level; (3) in that the practices "are always a means of attaining desired objects . . . they may be considered a psychological unity"; (4) "traditional emotional prejudices sustain these usages in both primitive and modern societies"; (5) there is an interpenetration of birth control usages with other cultural elements. Throughout the book there is abundant use made of examples of practices in various primitive groups. There is a short bibliography at the close of each chapter.—*M. Goodrie* (Clark).

1483. Beaglehole, E. *Property; a study in social psychology*. New York: Macmillan, 1932. Pp. 327. \$3.75.—The author is concerned with the genesis of attitudes toward property; his method is that of assembling, arranging and criticizing materials already in the literature. In Part I he examines the evidence on property behavior in animals, with the general conclusion that in the lower forms accumulation of property is strictly incidental to the satisfaction of major impulses, but in the higher ones tentative evidence for sentiments of property are found; in no case does the author favor the postulation of an instinct of acquisition. In Part II, on the "simpler peoples," it is found that the kind of animism which identifies the self with the associated object is at the root of property sentiments, and that these sentiments are patterned in characteristic ways in each society; four tables exhibiting the association between various aspects of property customs accompany this section. Part III is an account of the development of property sense in individuals. The general conclusion is that there is no acquisitive instinct, but that property sentiments arise from the transference of self-regarding sentiment to ob-

jects regarded as an extension of the self.—*R. R. Willoughby* (Clark).

1484. Boome, E. J., & Richardson, M. A. *The nature and treatment of stammering*. New York: Dutton, 1932. Pp. 135. \$1.50.—See VI: 330.—*J. C. Spence* (Clark).

1485. Colucci, G. *Appunti di un neurologo sulla cosiddetta arte moderna*. (Remarks of a neurologist on the so-called modern art.) *Cimento*, 1931, No. 85, 1-10.—Many manifestations of art savor of the psychopathic. The modern art, especially the futurist, has the daring, disorder, and peculiarity of the neuropathic as such, therefore it can also be considered from the neurological viewpoint. The relationship between disease and art has already been recognized by Lombroso. The fantasy of the true artist, if it ranges to the neuropathic, stretches also to the abstract, even to the metaphysical limit. The musicians take first place here, then the painters and poets. The power of the modern artist stands in marked contrast with his discords, disproportions, gaudy color effects, and sharp contrasts in his works. The so-called modern art, especially the cartoon, has nothing in common with the speech of the insane, but rather with that of primitive peoples and children. The latter always has something natural or original about it, while the modern art appears as something lacking, artificial, which shows the poverty of its manifestations. According to the author, the peculiarities of modern art have no pathological characteristics.—*A. Angyal* (Turin).

1486. Dorsch, E. *Die Zurüstung der Seele für die Mystik*. (The preparation of the soul for mysticism.) *Zsch. f. Aesthetik u. Mystik*, 1931, 2, 97-121.—*A. Römer* (Leipzig).

1487. Dugas, L. *La conception française de l'autorité*. (The French conception of authority.) *Psychol. et vie*, 1931, 5, 271-273.—*Math. H. Piéron* (Sorbonne).

1488. Ferrière, A. *Le passage de l'autorité à la liberté*. (The transition from authority to liberty.) *Psychol. et vie*, 1931, 5, 273-275.—*Math. H. Piéron* (Sorbonne).

1489. Freedman, B. H. R. *Lenormand: a psychoanalytic dramatist*. *Psychoanal. Rev.*, 1932, 19, 64-71.—Although Lenormand did not begin to read Freud before 1917, his plays, both before and after that period, are full of psychoanalytic implications. Two plays deal with a father's incestuous love for his daughter. Many plays are characterized by an affect of uncertainty and anxiety; in one there is an emphasis on fantasy. Lenormand himself said that his plays attempt to portray the mysteries of the inner life of the characters, the struggle between the conscious and unconscious. From another point of view, his plays may be regarded as a struggle between the life and death instincts. In general, he conceives the ego-ideal imposed by civilization as being on the side of the death instincts. The work

of the artist is to be interpreted as the release of his unconscious obsessions. In his writing, the author expresses the desires which unconsciously or consciously are strong within him, but which he dare not express in real life. The acts of his characters may be those he would like to commit, himself, but in vicariously achieving them, he exorcises these wishes, so that it is unlikely he will ever express them in his own life. Also, the artist puts the man he is afraid he may become, on account of his repressed and inhibited desires, into his works. This conception considers art as a catharsis for the artist.—P. Blanchard (Philadelphia Child Guidance Clinic).

1490. Galsworthy, J. *The creation of character in literature*. New York: Oxford, 1931. Pp. 27. \$1.00.—"The nearest approach to a common formula may be attained in some such words as these: a real incident, or person, impinges sharply on a receptive mood of a novelist's particular nature or temperament; the thing observed and the mood of the observer click, as it were, like two cells clinging together to form the germ-point of creation. To this germ-point are attracted suitable impacts or impressions that have been stored in the sub-conscious mind, till the germ swells to proportions which demand the relief of expression, and in written words the novelist proceeds to free himself."—J. C. Spence (Clark).

1491. Gáspár, J. *Fajismeret. A modern anthropologia és öröklésbiologia problémái*. (Race science. The problems of modern anthropology and hereditary biology.) Budapest: 1930. Pp. 222.—I. Principles of racial biology. II. Morphological (external) appearance of races. III. Comparative anatomy and physiology of races. IV. Comparative pathology of races. V. Comparative psychology of races. VI. Sociology of races.—P. Ranschburg (Budapest).

1492. Glueck, S. *Mental hygiene and crime*. *Psychoanal. Rev.*, 1931, 19, 23-35.—A brief historical review of the social attitudes toward crime and punishment and of the development of scientific study of criminals prefaces suggestions as to what should be the aims in a mental hygiene program. These suggestions are: (1) We can learn from the past that progress in a scientific treatment of criminals will be slow. (2) Humanitarian interest in the individual offender must be combined with regard for the group welfare. (3) Research clinics are needed with carefully controlled conditions of investigation and treatment. (4) Radical changes in legal procedure are necessary; the job of the judge is to preside over trials, rule on questions of evidence, charge the jury, etc. Once the question of guilt is decided, the guilty offender should be treated according to plans made by a board qualified to interpret case study findings. Each case should be reconsidered at stated intervals, and modifications in the treatment plan instituted in the light of further reports available at those times. For successful

working of this plan, there must be wide limits between the minimum and maximum for the indeterminate sentence, and sufficient control of institutions to insure the carrying out of treatment methods outlined by the board of experts. (5) Efforts to prevent crime must be carried on more intensively and extensively. We have sufficient clinical evidence to accept and act upon the theory that delinquency has its beginnings in childhood, and in family difficulties. (6) Properly trained personnel must be provided for institutions, parole and probation work, and other agencies dealing with delinquents. The two-year course at the Institute of Criminal Law at Harvard Law School is a step in this direction. It provides, experimentally, a training course for college graduates who wish to work with delinquents. The course includes criminal law, criminal procedure, criminal evidence, social pathology, normal, abnormal and social psychology, psychopathology, measurement of intelligence, mental hygiene, social case work, research methods, etc.—P. Blanchard (Philadelphia Child Guidance Clinic).

1493. Gorphe, F. *L'utilisation de la psychologie dans la découverte de la vérité en justice*. (The utilization of psychology in the discovery of truth in justice.) *Psychol. et vie*, 1931, 5, 248-251.—Math. H. Piéron (Sorbonne).

1494. Guiraud, P. *Les meurtres immotivés*. (Unmotivated murders.) In *L'Evolution Psychiatrique*. Paris: Maloine, 1931. Pp. 23-34.—Analysis of the determinism of certain mysterious homicidal crimes apparently without rational explanation. These five cases are in the category of crimes committed by insane people without the intervention of pathologic anger or impulsion; they do not seem to have been motivated even by a delusive idea.—Math. H. Piéron (Sorbonne).

1495. Haire, N. [Ed.] *The sexual reform congress*. London: Kegan Paul, 1930. Pp. xl + 670. 25/-.—Proceedings of this, the third of such congresses, which was held in London in 1929. Two outstanding papers deal with archaic sex culture and schizophrenia and with insanity and divorce. Among other papers are those on prostitution, sex differences in dress, influence of the Mosaic law in producing immunity of the Jewish race to certain forms of malignant disease, use of blood tests for the determination of paternity, an ingenious method of foretelling the sex of children, and marriage as a psychological problem.—L. M. Hatfield (Maine).

1496. Hansen, K. *Ueber das Sprachheilwesen in den Vereinigten Staaten von Nordamerika*. (On speech correction in the United States.) *Hilfsschule*, 1931, 6, 515-543.—The author reports on the organization, method and theory of speech correction, the development of private instruction, the success of the organizations, and the plans of reform of J. J. Horn (California); and compares the American procedures with the German. He supports his work with information received from North American or-

ganizations and from his correspondence with two American colleagues. He comes to the conclusion that there is no centralization in speech correction in the United States, and that on the average it is not so well developed as in Germany.—W. Nolte (Berlin).

1497. Harms, E. *Die Variabilität der Individualpsychie als Grundlage eines Verstehens des religiösen Menschen und des Mystikers.* (The variability of the individual psyche as a foundation for a comprehension of religious men and mystics.) *Zsch. f. Religionspsychol.*, 1931, 4, 214-238.—For the explanation of the spiritual experiences of the religious man, Harms proceeds from the dynamic and individual tendency of the new psychology, which is advanced by Freud and Jung. As an example from the ministry Harms shows that one should not only view conversion and cases of reformation as examples of emotional repression, but should comprehend the possibility of a psychological variation of the contents of the soul not only negatively and from the point of view of its possibility of danger, but primarily religio-psychologically. In such cases the soul shifts its center of gravity out of the purely emotional sphere into that of feelings and thoughts, or at least such a shift has begun. There has arisen a relationship of affinity to any kind of reality of feeling and thought, which is not emotional and which can become material for the soul. And this affinity proves itself stronger than those for passions and feelings. This metamorphosis in the will is at the root of all religious experience, particularly. Harms next goes on to a detailed reference to the mystics who wish to have their own life experiences.—A. Römer (Leipzig).

1498. Hooton, E. A. *Up from the ape.* New York: Macmillan, 1931. Pp. xvii + 626. \$5.00.—The author's account of human development is divided into 5 parts: man's relations, the primate life cycle, the individual life cycle, fossil ancestors, and contemporary races. Illustrated.—W. S. Hunter (Clark).

1499. James, E. O. *The dawn of human civilization.* *Scientia*, 1931, 50, 233-240.—Speculations as to how some of the advances took place; domestication of animals, agriculture, wheels, pottery, etc.—R. G. Sherwood (Redmond, Washington).

1500. Karpman, B. *The "new" criminology. A critical review.* *Amer. J. Psychiat.*, 1931, 10, 687-722.—The article is a detailed review of B. Brasol's *The Elements of Crime (Psycho-Social Interpretation)*, published by the Oxford University Press, 1927. This reviewer sums up his discussion as follows: "Mr. Brasol's book is a worthless contribution. . . . It is not a work based on mature experience and careful observation. . . . It is full of faulty logic, immature, and even puerile thinking, gross inaccuracies and misinterpretations. Although a large literature is quoted, it was obviously read to find facts to support an argument rather

than evaluate the data in the light of the new knowledge gained." Mr. Brasol was formerly prosecuting attorney of the St. Petersburg Supreme Court.—S. J. Beck (Boston Psychopathic Hospital).

1501. Lehman, H. C., & Witty, P. A. *Scientific eminence and church membership.* *Scient. Mo.*, 1931, 33, 544-549.—The frequency with which outstanding scientists (starred in *American Men of Science*) are associated with various churches is analyzed. Their attendance is less than that of the average of those whose names appear in *Who's Who*; and it is associated mostly with the more liberal denominations, e.g., Unitarian and Congregational as compared with Catholic and Baptist.—J. F. Dashiell (North Carolina).

1502. Lesch, E. *Beim Spontanschreiben auftretende orthographische Fehler nach Zahl, Art und Ursache ihrer Entstehung.* (Orthographic errors in spontaneous writing, according to their number, quality and reasons for their origin.) *Hilfsschule*, 1931, 24, H.5.—The following data were gathered on 15 pupils of the third year, and in the following years on the same children as pupils of the 4-6 classes, compared with the same examinations on normals by the subsequent tests: (1) Letter to the Christ-child. (2) The events of yesterday. (3) Description of a series of 3 successive pictures (the bird and the cat). (4) Reproductive writing down of three daily used prayers. (5) Writing down of series of activities of father, mother, children. (6) Description of observed pictures. The material accounted to 11,928 written syllables with 3,782 errors. . . . Results: The number of errors in the 2nd and 3rd *Hilfsschulklasse* is 40 per 100 syllables, and decreases in the 4th class (as in the 2nd and 3rd normal school classes) to 20, in the 5th and 6th to 12 (against 5 in the 4th normal class). Orthography in spontaneous writing of feeble-minded children does not reach normal limits, but can still be corrected to a substantial degree. The quality of faults shows errors in (1) capitals and normal letters, (2) stretching and shortening of vowels, (3) separating and junction of words, (4) errors by altering, (5) errors by omission, (6) errors by addition, (7) errors by permuting (transposing) characters. Reasons for errors: (1) Written errors of speech. (2) Errors resulting from insufficient reproduction of the optical shape of characters, letters and words (H instead of E) or deficiency of differentiation between two quite different written symbols of the same or nearly the same sound (v instead of f), etc. (3) Errors depending on motor defects of the apparatus of speaking and writing. Always, and especially with the feeble-minded, there will be found as the real forces causing the orthographical errors of spontaneous writing: (1) fluency, (2) perseveration, and (3) the Ranschburg inhibition, i.e., proximity of two or more optically, acoustically or kinesthetically equal or similar (both italics or printed) letters, as for instance *naher* instead of *nachher* (auditively and kinesthetically *ch* and *h*), *wegeten* instead of *weggetan*,

schau die instead of *schaut die*, *eimal* instead of *einmal*, *heiger* instead of *heiliger* (i, t, k, h, l), etc. Also effective are individual feebleness of attention, memory, judgment, abstraction, analytic and synthetic function, as well as deficiency of sight, audition and mobility, influence of dialect, etc.—P. Ranschburg (Budapest).

1503. Llorio, G. L'autorité dans la fonction. (Authority in the function.) *Psychol. et vie*, 1931, 5, 263-266.—Math. H. Piéron (Sorbonne).

1504. Luisada, E. La volontà accomunata—l'intelligenza associata. (Generalized will and associated intelligence.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 232-234.—A. Angyal (Turin).

1505. Maitra, S. K. The problem of value. II. *Rev. Phil. & Rel. (India)*, 1931, 2, 97-110.—The psychological approach to a problem already discussed in an earlier article from the metaphysical point of view. The author considers briefly earlier theories, and points out that "the real protest of the philosophy of values is against the neutralism of the purely logical view of the world." How to escape this neutralism is the chief problem of philosophy today. "The battle of the twentieth century is going to be fought over the question of personality."—O. L. Harvey (Cambridge, Mass.).

1506. Mandeville, S. Les abus de l'autorité. (The abuses of authority.) *Psychol. et vie*, 1931, 5, 275-277.—Math. H. Piéron (Sorbonne).

1507. Marro, G. Del "seppellimento secondario" nell'antico Egitto. (On "secondary burial" in ancient Egypt.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 226-229.—A. Angyal (Turin).

1508. Masson-Oursel, P. L'efficacité du vrai selon la pensée primitive. (The efficacy of the truth according to primitive thought.) *Psychol. et vie*, 1931, 5, 251-252.—Math. H. Piéron (Sorbonne).

1509. Morlet, P. Essai sur le rythme musical. (Essay on musical rhythm.) *Rev. phil.*, 1931, 31, 523-547.—The author studied the relation of voluntary attention to musical rhythm. He used a writing arrangement adapted to a Morse key. With this key the subject had to tap out the rhythm of a melody, well known to himself, which he was to sing inwardly, being allowed to make no additional movements of his feet or lips. During this time another melody having a very different rhythm was given in the same manner. Rhythm, says the author, is the order given to material data of movement, an onward flow of an ordered succession. This arrangement of material data in movement must be present in consciousness under the form, not of particular images, but of images of a certain kind of auditory, visual, and muscular sensations. If we admit that the will, once given direction by a judgment, has acted directly on the images, we can see that rhythm, which is only a modality of these images, can be in-

fluenced by the will, not in respect to its arousal, which is entirely the work of memory, but in respect to its stability.—Math. H. Piéron (Sorbonne).

1510. Müller, J. Psychologie und sachliches Leben. (Psychology and practical life.) *Zsch. f. Religionspsychol.*, 1931, 4, 209-213.—A reply to Neumann's treatise in 3, 197 ff., wherein Müller shows that he lives wholly in the world of practical affairs, and primarily, that one cannot take and criticize as concepts his expressions for God, soul, etc., which are now only working hypotheses. He also shows that he must challenge Neumann's judgment that his life work is wrecked.—A. Römer (Leipzig).

1511. Murphy, G. Our social attitudes. Chicago: Univ. Chicago Press, 1931. Pp. 8.—A radio address on the origin and control of convictions and prejudices.—N. L. Munn (Pittsburgh).

1512. Nahrhaft, O. Der Erste Internationale Religionspsychologische Kongress. (The first international congress of religious psychology.) *Zsch. f. Religionspsychol.*, 1931, 3, 97-109.—Report by one of the vice-presidents.—A. Römer (Leipzig).

1513. Neumann, J. Kritische Erwägungen zur religionspsychologischen Methode Girgensohns. (A critical consideration of the religio-psychological method of Girgensohn.) *Zsch. f. Religionspsychol.*, 1931, 4, 201-208.—Neumann believes that Girgensohn and Gruehn have made things too easy for themselves by rejecting psychoanalysis. He considers a combination of analytical and experimental psychology possible. In any case, psychoanalysis also has proven that an understanding of the adult is impossible without careful analysis of his mental development. Girgensohn has not properly appreciated the unknown; consequently his theory of emotions becomes involved. Felix Krueger has brought forth a newer theory of the emotions from the point of view of the "psychology of the whole." He defines it as the quality of experience of the whole individual. But Otto and Spranger also show the way to the bridging of the gaps occurring in Girgensohn's work.—A. Römer (Leipzig).

1514. Neuber, E. A debreceni I. oszt tanulókat vizsgálása egészségügyi szempontból. (The examination of primary class pupils of the elementary schools of Debrecen.) Budapest: Hungarian Minister for Instruction and Culture, 1931.—Examination of 1909 school beginners of 6-7 years from a general hygienic standpoint, with special regard to infectious diseases, (syphilis, tuberculosis, fungus, worms, itch and other skin parasites, etc.) as well as of other alterations of the skin and of viscera, condition of teeth, anthropometrical measures, X-ray states, lodgings and hygienic condition of relatives of school children. Of nearly 2000 children, 1.99% were certainly congenitally syphilitic; 2.88% were suspect. Of 1860 school children 3.78% were actively tubercular, 16.78% inactively so.

Weight (Kg.)			Height (Cm.)			Chest circumference (Cm.)			Head circumference (Cm.)			Pulse (per minute)		
Min.	Ave.	Max.	Min.	Ave.	Max.	Min.	Ave.	Max.	Min.	Ave.	Max.	Min.	Ave.	Max.
6½ years:														
♂ 14.5	20.0	32.5	96	114.6	128.0	50.0	55.1	65	46	50.4	55	80	108	133
♀ 14	19.5	30.5	108	114.4	126.0	49	52	63	46.0	49.5	53.5	73	105	148
7 years:														
♂ 15	31.1	30.5	101	117.1	141.9	50	54.3	67	46.5	50.4	54.0	80	107	100
♀ 14	30.4	26.5	108	117.0	135.0	46.0	54.9	66.5	46.5	49.4	53.5	80	110.5	145

—P. Ranschburg (Budapest).

1515. Nichols, C. A. Moral education among the North American Indians. *Teach. Coll. Contrib. Educ.*, 1930, No. 427. Pp. vi + 104.—The purpose is "to collect and make easily accessible some of the available historical data [together with some more recent ethnological studies] concerning the moral ideas which the North American Indians instilled in the individual, and the methods by which their ideas were transmitted." Consideration is given to: (1) Tlingit myths; (2) 5 accounts of family and village life; (3) material collected by the American Museum of Natural History on the sun-dance ceremonies; (4) the Hako as a religious ceremony. A final chapter is entitled *Characteristics of Indian Morality and Education*. The bibliography contains 63 titles.—J. M. Stalnaker (Chicago).

1516. Pende, N. *Psicologia individuale e psicologia di razza*. (Individual and racial psychology.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 47-51.—A. Angyal (Turin).

1517. Pfister, O. Religion und Geisteshygiene. (Religion and mental hygiene.) *Zsch. f. Religionspsychol.*, 1931, 4, 193-200.—Report concerning the International Congress on Mental Hygiene in Washington. Contents: Part I. What are the contributions which religion can make to mental hygiene? (Religious examination, active overcoming of wrong and active gaining of virtue, social protection.) Part II. Under what conditions can hygienically valuable religious values be made effective? ("Many individuals need a secular healing process before they can be made accessible hygienically to an immaculate piety." Hence one will naturally not be able to attain the standard of the common pedagogical norms.)—A. Römer (Leipzig).

1518. Reiser, O. L. The biological origins of religion. *Psychoanal. Rev.*, 1932, 19, 1-22.—According to the naturalistic view, religion is developed out of the responses of organisms living together in a common physical environment. The striking similarities between different forms of religions are only partly explained by the theory of cultural diffusion; similarity of psychological motivation must also be involved in the explanation. There must be an external stimulus and an internal response to that stimulus acting together. Sun and star worship are universal in primitive religions. The presence of these heavenly bodies is the external stimulus; a

tendency for all forms of life to respond to light is the internal response. This internal response to light is a deep-rooted biological pattern; there is evidence that life arose through a photosynthesis of the sun's energy with the carbon compounds of the earth. Protoplasm has retained a memory of this origin of life. Moreover, living organisms, plant and animal, are heliotropic; also light has a beneficial effect on metabolic processes. These biological responses to light, plus a recognition of its beneficial effects, caused primitive peoples to express gratitude to the sun, whence came light, and to worship it. As social life became more complex, symbols began to function. The symbol as a social product is arbitrary; the person who is educated to it by social heredity responds to the symbol as if it were the original biological stimulus. Thus for the original tendency to sun worship, symbols are substituted. These symbols bear traces of their relation to the old sun worship: we say that heaven is above, that the gods sit on high, that we must look up for guidance and light. The gods of good and evil are respectively those of light and darkness in all religions.—P. Blanchard (Philadelphia Child Guidance Clinic).

1519. Richmond, F. G. The criminal feeble-minded. *J. Crim. Law & Crimin.*, 1931, 21, 537-552.—(Bibliographia Eugenica).

1520. Rogers, J. F. Speech defects and their correction. Washington Govt. Printing Office, 1931. Pp. 28. \$.05.—The author presents this pamphlet to meet the needs of teachers and parents living in communities where no speech clinics are available. Speech defects are classified into three groups: mechanical, emotional, and defects due to faulty learning, imitation and delayed habits. Methods for diagnosing each of these are given, and diagnostic material is included, also suggestions for correction including a variety of exercise and drill material.—C. V. Hudgins (Clark).

1521. Römer, A. Zur Psychologie der Bekehrung. (On the psychology of conversion.) *Geist. d. Gegen.*, 1931, 67, 339-346.—A. Römer (Leipzig).

1522. Ruland, L. Was gewinnt die Moralthologie aus der Verwertung der Ergebnisse der medizinischen Psychologie? (What does moral theology obtain from the evaluation of the results of medical psychology?) *Ethik u. Leben*, 1931, 181-196.—A. Römer (Leipzig).

1523. Schjelderup, H. K. Psychologische Analyse eines Falles von Zungenreden. (Psychological analysis of a case of glossolalia.) *Zsch. f. Psychol.*, 1931, 122, 1-27.—A. Römer (Leipzig).

1524. Schlögl, E. Emotionale Gotteserlebnisse. (Emotional experiences of God.) Leipzig: Barth, 1931. Pp. 168. M. 12.—Methodological questions on religious psychology—primarily on the empirical and psychological contributions to the genetic development of emotional experiences of God.—A. Römer (Leipzig).

1525. Seashore, C. E. The natural history of the vibrato. *Proc. Nat. Acad. Sci.*, 1931, 17, 623-626.—The paper deals with the study of the vibrato from two approaches: (1) phonophotographic recording of musical performance and speech, and (2) psychophysical measurements on the perception of the vibrato produced synthetically by instruments. Several definitions of the vibrato are given, and an analysis is made of its component parts. A description is given of four of the normal illusions which function in the vibrato, and without which the vibrato as it now exists would be utterly intolerable. A full account of these studies appears in *The Vibrato*, University of Iowa Studies in the Psychology of Music, now in press.—J. C. Kurts (Washington, D. C.).

1526. Stekel, W. *Marriage at the crossroads*. New York: William Godwin, 1931. Pp. ix + 162. \$2.00.—The peculiar insight gained by the analytic psychiatrist into marriage problems is the basis of the conclusions here presented. A revolution in marriage is under way; but there can be no question of doing away with marriage. The solution of the problem is not in "free love" but in "free marriage." Monogamy will always remain. There is the "white marriage" founded upon platonic affection, with sexuality eliminated; the "red marriage" based upon the physical alone; the marriage of convenience, which might be described as "grey marriage." Each of these has grave dangers, and no one is sufficient for a happy marriage; but one of them may provide the basic component for a complete marriage of complete people, which is a synthesis of instinct, emotion and intellect. The conceptions of marriage of four and of three are impossible; the only possibility is marriage of two, with complete equality and mutual freedom. Every marriage is actually a "trial" marriage, but the legal establishment of such a form is impossible because of practical considerations. The modern small family is responsible for many unhappy marriages by producing only or coddled children. Those who are unhappy in marriage have no right to have children. Psychoanalysis has proved that nervous children always spring from unhappy marriages. To take children from their parents and bring them up in state nurseries would be to "degrade marriage to a purely sexual and economic union and make the children psychical cripples." The problem of marriage cannot be solved socially, but only individually. The only solution is "a reform of education which aims to avoid all mistakes and which represents a training for life and a preparation for marriage. The school of marriage is the family, the example of the parents."—M. P. Montgomery (Faribault, Minn.).

1527. Theiss, H. *Experimentelle Untersuchungen über die Erfassung des handschriftlichen Ausdrucks durch Laien*. (Experimental investigation concerning the comprehension of expression in handwriting by the laity.) *Psychol. Forsch.*, 1931, 15,

276-358.—The basic problem of this investigation is the immediate effect of the characteristics in handwriting on over 700 non-professional judges ranging in age from 7 years to over 20. The paper deals specifically with (1) the effect of age on the ability to make judgments of personality from handwriting; (2) the ability to judge specific characteristics from handwriting; (3) an analysis of the factors in handwriting which form the basis of the judgments. The S's either described personality from the handwriting (free judgment method) or arranged in order two or three samples to fit the experimenter's description of personality traits of the writers (ordering method). The chief results are the following: By the method of ordering for all S's and all experiments with two samples an average index of 1.40 was obtained, and for three samples one of 1.95 (this index would have been 1 in both cases had chance alone operated, and 2 or 3 respectively had the judgments been uniformly correct). With increase in age from 7 the ability to judge increases to a maximum at 13, and then remains constant. The judgments are most often based on the whole character of the writing. Although certain traits are better judged than others, the success of the judgment is even more dependent on the conditions of the experiment. Free judgment shows but a slight preponderance of correct over false judgments. When one compares such correct judgments with the mathematical probability of such judgments, one sees that even in this type of judgment most people have the potential ability to discern personality from handwriting.—J. F. Brown (Colorado).

1528. Tóth, I. *Az orvos és a muzsika*. (Physician and music.) Budapest: 1931. Pp. 7.—After nature there is art, especially music, giving satisfaction and rest to the ever restless mind of the physician.—P. Ranschburg (Budapest).

1529. Van Gennep, A. *Constitution de l'autorité*. (The constitution of authority.) *Psychol. et vie*, 1931, 5, 260-262.—*Math. H. Piéron* (Sorbonne).

1530. Waterhouse, E. S. *Psychology and religion*. New York: R. R. Smith, 1931. Pp. xvii + 232. \$2.00.—This book is dedicated "to those who did not 'switch off'" and is written primarily for the person who is interested in religion instead of the psychologist interested in the psychology of religious phenomena. The author makes use of many psychological findings from many different fields. He criticizes the writings of many psychologists who have written on the psychology of religion, although most of the book is devoted to the application of psychological findings to such religious problems as suggestion and belief, intellect and religion, the psychology of conversion, prayer, temptation, worship, etc.—F. J. Gaudet (Dana).

[See also abstracts 1345, 1377, 1425, 1438, 1573, 1579, 1587, 1598, 1603, 1624, 1626, 1631, 1651.]

INDUSTRIAL AND PERSONNEL PROBLEMS

1531. Banissoni, F. Il contributo della scuola di Roma allo studio del lavoro. (The contribution of the Roman school to the study of work.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 123-129.—A. Angyal (Turin).

1532. Bonaventura, E. Recenti contributi alla psicotecnica dell'istituto di psicologia di Firenze. (New contributions to psychotechnics from the psychological institute at Florence.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 109-113.—A. Angyal (Turin).

1533. Bonaventura, E. Sul valore dell'equazione personale negli addetti al ricevimento di segnali radiofonici. (Concerning the significance of the personal equation among those employed in the reception of wireless signals.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 178-180.—A. Angyal (Turin).

1534. Bonaventura, L. Problemi del orientamento professionale degli anormali psichici. (Problems in the professional adjustments of the mentally abnormal.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 204-210.—A. Angyal (Turin).

1535. Clark, E. B. The color problem in dentistry. I. Introduction. *Dent. Dig.*, 1931, 37, 499-509.—The requirements of the color problem in dentistry are: (1) a knowledge of the fundamentals of color science; (2) a method for the visual analysis of tooth color and a system which provides for the specification of the color found, together with formulae for its reproduction in dental porcelain and cements; (3) pigments of sufficient color range to make possible the reproduction of all tooth-color specifications. Dentists are inadequately equipped to meet these requirements, because the professional curriculum does not provide instruction in the fundamentals of color science; as a result of this the urgent need for exact specifications of tooth color has been inadequately felt and a sufficient color range in ceramic porcelain has not been made available to them. This first article includes a clear presentation of the three dimensions of color.—A. G. Dietze (Pittsburgh).

1536. Clark, E. B. The color problem in dentistry. II. A practical application of the psychological primary colors. *Dent. Dig.*, 1931, 37, 571-582.—This article describes a scientific method for the visual inspection of tooth color to obtain exact specifications for the preparation of teeth in dental porcelain. A basic arrangement of the entire field of tooth color into equal steps of hue, brilliancy, and saturation constructed in high-fusing dental porcelain serves the author as a reference table in discussing the specifications of teeth in terms of these dimensions. The colors of natural teeth can be classed into three groups of dark, medium-brilliant, and light. Since the different surfaces of the same tooth present saturation and brilliance differences as well as hue differences, it is necessary to classify the sur-

face of the crown into the gingival third, the middle third, and the incisal third. The author has prepared a shade guide containing 60 teeth arranged in such a manner that it furnishes the specifications for 342 gingival-third colors and 342 incisal-third colors. The construction of this shade-guide in the shape and size of natural teeth serves to prevent many psychological errors in matching natural teeth for the purpose of obtaining color specifications.—A. G. Dietze (Pittsburgh).

1537. Clark, E. B. The color problem in dentistry. III. The physical nature of color. *Dent. Dig.*, 1931, 37, 646-660.—This contains a discussion of the nature of light, the production of colors, reflection and absorption, and the methods of color mixing. The principles discussed are applied for the dental profession with special reference to the production of color in natural and artificial teeth.—A. G. Dietze (Pittsburgh).

1538. Clark, E. B. The color problem in dentistry. IV. Applied color-mixture. *Dent. Dig.*, 1931, 37, 732-741.—The principles of color mixing are applied to the preparation of dental restoratives. The phenomena of adaptation, induction, contrast, and color anesthesia are discussed with special reference to their applications in the dental profession.—A. G. Dietze (Pittsburgh).

1539. Clark, E. B. The color problem in dentistry. V. Color and illumination. *Dent. Dig.*, 1931, 37, 815-826.—The frequent failure of restoratives that gave a perfect match in the laboratory to match when placed in the mouth is traced by the author to one or both of two factors related to illumination. A detailed discussion of the variability of light sources is presented and applied to the choice of illuminating light in dental work. The life-like quality of natural teeth gives rise to the most difficult problem in restoration. The author gives evidence that this quality is due to fluorescence and suggests methods for reproducing the fluorescence of natural teeth in porcelain.—A. G. Dietze (Pittsburgh).

1540. Clark, E. B. An analysis of tooth color. *J. Amer. Dent. Ass.*, 1931, 18, 2093-2103.—This report summarizes data accumulated in an analysis of the teeth of 1000 patients treated over a period of eight years, the purpose of the analysis being to establish and record definite specifications of tooth color to serve as a basis for further research in color and its applications in dental ceramics. The construction of shade-guide teeth in terms of the Munsell color system is described. Clark's shade-guide teeth establish the limits and averages of tooth color in the several dimensions for the use of the dental profession.—A. G. Dietze (Pittsburgh).

1541. Colucci, C. Indagini di psicologia individuale e di psicotecnica del lavoro. (Investigations on individual psychology and the psychotechnics of work.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 170-173.—A. Angyal (Turin).

1542. De Sanctis, S. Principi e applicazioni della psicologia del lavoro. (Principles and applications of psychology to work.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 17-38.—A. Angyal (Turin).

1543. Diez Gasca, M. Ricerche sulle attitudini al lavoro di modista. (Aptitude tests for millinery work.) *Rass. med. appl. al lavoro indus.*, 1930, 3, 127-128.—The author discusses some research which he has conducted on the aptitude for millinery work and reports on the kind of tests which were considered and the results which were obtained with these tests.—A. Angyal (Turin).

1544. Galdo, L. Le direttive delle ricerche di psicotecnica nell' Istituto di Psicologia di Napoli. (The guiding principles of the psychotechnical investigations in the Psychological Institute at Naples.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 116-117.—A. Angyal (Turin).

1545. Gatti, E. I principi fondamentali della organizzazione scientifica del lavoro applicate alla officina scolastica: Parte prima: Testo, pp. 130. Parte seconda: Schemi, moduli, schede, pp. 113. (The fundamental principles of the scientific organization of work applied to the school factory. Part I, Text. Part II, Projects, models, and outlines.) Novara: Stabilimento Tipografico Cattaneo, 1930.—The author maintains the possibility of and the opportunity for the application of the principle of scientific organization of work to whatever may be the object of action, always provided that one considers whether organized manufacturing can afford the expense of preparatory studies which might not be fitted for operations destined to be reproduced but once or twice. With the end in view of forming an organizing mentality in the new generation, destined for work in industries, which will be in exact harmony with the mentality of the directors and which will fulfil the ends imposed by the organization of production, the author plans to analyze this problem in his book from the point of view of industrial instruction. Special schools where science and work, theory and practice, go hand in hand are perfectly adapted to form a valuable element in the education and training of youth. In this book the author describes the system which he devised and put into practice in his industrial institution at Novara. Didactic technique is the sum of the rules which teach students the rational method of doing, in any field of their scholastic activity, a given, profitable piece of work without loss of time or energy. These rules deal with learning all the way to its concrete finish and seek to create a habit of work according to methods adapted to a control of the results of one's own personal work when surrounded by the work of other young people and to furnish the possibility of experiencing one's own habits and mental states which are necessary to a comprehension of the principles of organization. The unification of the didactic technique, the author thinks, ought to be governed by the same principles which govern the

organization of work in factories.—M. Ponso (Turin).

1546. Gemelli, A. Sull' attività psicotecnica del laboratorio di psicologia sperimentale dell' Università Cattolica del S. Cuore. (On the psychotechnical activity of the experimental psychology laboratory of the Catholic University of the Sacred Heart.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 114-115.—A. Angyal (Turin).

1547. Gemelli, A., & Galli, A. Nuove ricerche sul lavoro al nastro trasportatore e sul rapporto tra ritmo della macchina e ritmo del lavoro umano. (New investigations on conveyor-belt work and on the relation between the rhythm of the machine and the rhythm of human work.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 163-164.—A. Angyal (Turin).

1548. Gemelli, A., & Galli, A. Nuova serie di ricerche sui tempi di reazione in relazione con la loro applicazione alla selezione. (New lines of investigation concerning reaction times in relation to their application to selection.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 165-166.—A. Angyal (Turin).

1549. Ilvento, A. Il fattore individuale nell' infortunio. (The individual factors in accidents.) *Rass. di med. appl. al lavoro indus.*, 1930, 3, 127-128.—The author is of the opinion that the factory hospital should record for each worker all the small but frequent accidents which would otherwise ordinarily remain unnoticed. Thereby one could recognize early the individual factors disposing the worker to accident and keep him from the more dangerous work.—A. Angyal (Turin).

1550. Koslov, P. A. [Improvement of locksmith tools for the use of adolescents.] *Pedologiya*, 1930, No. 5-6.—It is the writer's opinion that in order to teach adolescents locksmithing it is necessary to use tools corresponding to their anatomical and physiological peculiarities. Two instruments were accordingly improved, the handle of a large file, and a chisel. A start was also made in the improvement of the hand saw. The size and shape of the instruments were determined by two methods: by dactyloscopy and by copying in plasticine. The hand saw will probably be improved by more complicated physiological methods, such as gas metabolism, clinical timing and the investigation of fatigue. The authors established four sizes of file handles and three sizes of locksmith chisels for adolescents.—K. Anson (Moscow).

1551. Miles, W. R. Psychology and the professions, medicine, law, and theology. In *Psychology at Work*. New York: Whittlesey House, McGraw-Hill, 1932. Pp. 102-143.—Medicine and law have sprung from religion. Each now struggles against the other for prestige. All have used psychological applications in their practice. Psychology seems to operate as an ancillary, a coordinator, in integrating

them in the service of mankind. Psychology is the antithesis of the systematization and institutionalization characteristic especially of law and theology. It draws attention once more to individual happiness. It proffers to the lawyer specialized knowledge concerning personality abnormalities, mental defect, the detection of deliberate deception, the motivation of crimes. To the physician it proffers mental hygiene and the understanding through case studies of the patient's cultural and temperamental background. It has been able to demonstrate that religious conversions are not always abnormal, but that often they represent the adjustive reintegration of personalities formerly lost in emotional chaos. It shows the value of religion as a compensatory influence of value to the individual whose social and material environment forces on him an awareness of his own inferiority. There is no war between real science and real religion.—*O. L. Harvey* (Cambridge, Mass.).

1552. Musatti, C. L. *La partecipazione del laboratorio di psicologia di Padova alle indagini di psicotechnica.* (The participation of the psychological laboratory at Padua in psychotechnical investigations.) *Atti VII. convegno psicol. sper. e psicotech.*, Torino, 1929. Pp. 118-122.—*A. Angyal* (Turin).

1553. Myers, C. S. *The human factor in industry.* *Indus. Welfare & Person. Management*, 1932, 14, 9-10.—The main desiderata of British industry are increased efficiency, reduced cost of production and increased incentives to work. The human factor is not sufficiently studied in planning transport and production, layout and routing. Non-financial incentives need to be encouraged. The contributions of the Institute of Industrial Psychology are cited. Among these are aid in reducing long hours, waste, worry, mental strain and discontent which occur in offices, stores, factories and mines. The increasing usefulness of the Institute is indicated by the fact that fees for services have increased about seventeen times during the last ten years.—*R. S. Uhrbrock* (Proctor & Gamble Company).

1554. Peri, A. *Medicina del lavoro—disciplina italiana.* (Industrial medicine, and Italian discipline.) *Riv. terap. mod. med. prat.*, 1931, 88.—The author attempts to point out that the therapeutics of work is of Italian origin. B. Ramazzini (1700) was the founder of this field. The other great promoter of this science was also an Italian—Mantegazza. The author further describes the story of the therapeutics of work in Italy, also the resources which the various Italian institutes have developed in this field.—*A. Angyal* (Turin).

1555. Petrov, D., Pata, M., & Makedvedeva, —. [Standardization of farm tools for children.] *Pedologia*, 1930, No. 5-6.—On the basis of an experimental investigation carried on for a long period of time and of an intensive analysis of the related processes of work, the authors determined the pedagogical standards of size and construction of a shovel, a hoe, a rake and a watering can. The authors give

the drawings and standards of the improved tools.—*K. Anson* (Moscow).

1556. Ponso, M. *L'opera svolta nell'ambito della psicotechnica dal Istituto di Psicologia Sperimentale di Torino.* (The work done in the field of psychotechnics at the Institute of Experimental Psychology at Turin.) *Atti VII. convegno psicol. sper. e psicotech.*, Torino, 1929. Pp. 130-139.—*A. Angyal* (Turin).

1557. Rosanov, T. G., Astrakhan, E., Philippova, O., & Chermikova, O. [A technique for measuring the working ability of children engaged in non-trade work.] *Pedologiya*, 1930, No. 5-6.—The division for research in polytechnical education of the Institute of Extra-School Activities devised a special series of tests for measuring the degree and quality of the preparation in manual work of children and adolescents. The authors compiled an analytical list of technical habits and devised a method of graphically representing the quality of the work. As illustrations, the author presents some individual and collective graphs.—*K. Anson* (Moscow).

1558. Vilenkina, R. G. [The investigation of the occupations and social opinions of the adolescent worker in the factory and trade schools.] (Psychoneurological studies in U.S.S.R. The material of the first congress of the Soviet Union for the investigation of human relations.) Moscow: Gosmedizdat, 1930.—The investigation was conducted by means of a questionnaire and by observations during work. The results have practical application.—*K. Anson* (Moscow).

1559. Viteles, M. S. *Psychology and industry.* In *Psychology at Work*. New York: Whittlesey House, McGraw-Hill, 1932. Pp. 144-198.—The aims of the industrial psychologist are (1) to promote the adjustment of the worker, and (2) to increase industrial efficiency. These ends are effected by: (1) selective adjustment of workers at time of employment, by means of tests to determine individual differences in certain fundamentally significant specific abilities, and by obtaining a comprehensive objective clinical picture of the individual worker; (2) careful and proper training of workers, involving incidentally, for example, the analysis of work curves as a means of predicting degree of adjustment to job, and (in some cases) the administration of special tests of habit persistence; (3) elimination or reduction of monotony—a phenomenon which can be detected by a characteristic drop in the middle of the production curve, and by variability in production; and (4) determination of critical levels of intelligence appropriate to different jobs. Clinical treatment of workers is emphasized. 21 graphic illustrations.—*O. L. Harvey* (Cambridge, Mass.).

1560. Worsham, J. A. *Low pressure selling.* Bloomington, Ill.: Midwest Press, 1931. Pp. 223. \$2.50.—Reiteration and elaboration of the thesis that wants rather than needs are the objectives of

the salesman. "Find out what people want, convince them that your product or services will satisfy those wants and your prospect buys." The word *want* is set in capitals throughout the book. Wants help the salesman get in and stay in, the sales manual should call attention to them, advertising helps develop them and they lend themselves to the planned presentation. Illustrative sales situations are interpreted in the light of the main thesis.—*H. E. Burt* (Ohio State).

[See also abstracts 1566, 1567, 1653.]

CHILDHOOD AND ADOLESCENCE

1561. Anson, K. [Youth and early manhood. Critical comments on the Russian work.] *Psikhologiya*, 1931, No. 3-4.—*K. Anson* (Moscow).

1562. Arkin, G. E. [A critical bibliographical survey of the important German work on the psychology of the transitional and adolescent ages.] *Pedologiya*, 1930, 1, No. 7.—*K. Anson* (Moscow).

1563. Aryamov, I. A. [The foundations of pedology.] Moscow: Rabotnik Prosveshchenia, 1930. Pp. 326.—Two chapters in this book are concerned with adolescents: Chapter X—the secondary school period (common characteristics, higher nervous capacity of the modern adolescent); Chapter XII—the solution of the sex problem. The author criticizes the characterization of the specific peculiarities of youth during puberty, as the foreign investigators and the literature of pre-revolution Russia delineated it, since this characterization describes only the youth of common intelligence. In the attitudes of the youth of workers and farmers in the Soviet Union, such specific characteristics are not usual. The author has put forth his views in his two books, *The Child of the Worker* and *Working Youth*. The author's methodological foundations are mechanistic.—*K. Anson* (Moscow).

1564. Aryamov, I. A. [Peculiarities in the thought process of the adolescents and youth of Soviet Russia.] Moscow: Uchpedgiz, 1931. Pp. 102.—With the assistance of his students and co-workers, the author undertook an investigation of 1200 adolescents aged 12-18; in particular, children of workers and officials who were attending the high school or the factory and trade schools, as well as former neglected children, were used. In the investigation the tests of German authors were employed, especially those of W. Stern. The methodology of the work is a highly mechanistic one, founded on the reflexology of Pavlov. The thought process in the development of the child and the training of dogs displays no essential difference, according to the author.—*K. Anson* (Moscow).

1565. Belych, G., & Panteleev, L. [A republic of school children.] Moscow: Gosizdat, 1930.—The former neglected children themselves describe in colorful and literary form how better education for neglected children and law-breakers was brought

about in the Dostoevski school in Leningrad.—*K. Anson* (Moscow).

1566. Beresin, P. N. [Problems and methods for the study of working youth.] In (Psychoneurological studies in U.S.S.R.). Moscow-Leningrad: Gosmedizdat, 1930. Pp. 175-179.—*K. Anson* (Moscow).

1567. Beresin, P., Bobrov, S., Guseva, E., Kondratova, L., Levashov, K., Myasishchev, W., & Shiperovich, W. [Working youth.] Leningrad: Priboj, 1930. Pp. 151.—The experimental study of youths working at a trade.—*K. Anson* (Moscow).

1568. Braunhoffner, J. Testhoesz és testsúlymérések eredménye. (Height and weight measurements of 41,868 elementary school children 6-14 years old in 113 schools of Budapest, by school physicians with the help of school nurses (1928-29).) *Népegészségügy*, 1930, No. 17.—These measures are compared

Boys (N = 21,673)

Age	Height (cm.)			Weight (kg.)		
	M.	-Q ₁	Q ₃ -	M.	-Q ₁	Q ₃ -
6-7	115.8	111-115	117-120	21.3	19.0-20.7	21.6-24.5
7-8	119.1	113-118	120-124	22.7	21.3-22.3	23.3-25.3
8-9	124.4	119-122	126-129	25.2	23.9-24.6	25.9-27.5
9-10	129.2	126-128	130-134	27.4	25.5-26.8	28.2-30.0
10-11	132.1	127-131	134-139	29.1	26.5-28.5	30.1-33.3
11-12	135.1	131-134	137-142	31.3	28.5-30.2	32.1-35.2
12-13	139.2	133-138	141-143	33.6	29.5-32.5	34.5-36.8
13-14	143.3	137-141	146-150	36.3	30.0-34.7	38.1-43.2

Girls (N = 19,195)

Age	Height (cm.)			Weight (kg.)		
	M.	-Q ₁	Q ₃ -	M.	-Q ₁	Q ₃ -
6-7	114.8	110-114	116-119	21.3	19.0-20.1	21.4-22.9
7-8	118.0	113-117	119-122	22.1	20.0-21.5	22.7-25.2
8-9	123.7	119-122	125-128	24.6	21.1-24.0	25.4-27.8
9-10	128.2	123-127	130-134	27.0	25.3-26.2	27.9-30.0
10-11	132.0	127-131	134-137	28.9	26.2-28.1	30.0-32.8
11-12	136.4	128-135	138-143	31.6	28.2-30.6	32.9-36.5
12-13	140.4	131-138	143-147	34.5	30.9-32.8	35.9-40.8
13-14	145.2	137-143	147-154	38.5	30.7-36.4	40.8-45.9

with those given by Mishima for Japan, with measures published for children of the same age from London, Stuttgart, Erfurt, Mannheim, Munich, and Berlin, and with those published by Pirquet, Pfäundler, Bartucz and Szondi, the last two for Hungary.—*P. Ranschburg* (Budapest).

1569. Colucci, C. L'igiene mentale del lattante. (The mental hygiene of infants.) *Ig. ment.*, 1931, 14, 1-6.—The mental hygiene of infants must begin with an accumulation of biological knowledge and advice on the proper development of the neuropsychological system, which takes place during this part of life. From the standpoint of psychology and mental hygiene it can be divided into two periods: the first is organic, physiological, spinal-mesencephalic, the second is the beginning of the real mental life. In the first period there are isolated psychical manifestations, first pain, then joy, a touch of knowledge; there are not merely somatic expressions and reflexes. A systematization of physiological functions also takes place. The brain appears above

everything to be an organ of development. Mental hygiene must consider this time as a latent period; still one can already, in the course of controlling the infant, set about educating him. In the second period there are a distinct number of psychical activities. Sense stimuli from the outside are often received, sense stimuli from the inside seldom. In this period, one must control the sense stimuli which work on the child, since one should create a quiet environment for him. It is a false belief that a child's waking up crying always implies an indisposition. A large percentage of the children dying at this age suffer from nervous and mental factors. To investigate and attack this problem is the task of mental hygiene.—A. Augyal (Turin).

1570. Court, S. E. A. Some sentences of a boy three years eight months old. *Proc. Okla. Acad. Sci.*, 1926, 6, Pt. II (*Univ. Okla. Acad. Sci.*, N. S., No. 348), 334-343.—This boy, a neighbor of the writer, was a healthy, active and friendly child with an IQ of 91, but quite precocious in motor ability. The writer observed the boy for nine days and made complete records of his speech reactions at the age of three years eight months. During that time he uttered a total of 201 sentences, the analysis of which constitutes the bulk of this report. The total number of words included in these sentences was 974, giving an average of 4.8 words to the sentence. Of these sentences, 141, or 70%, were complete; 56 or 28% incomplete; and the remaining 2% were sentence words and laconic, elliptical answers to the author's questions. The parts of speech omitted were: articles, 4; personal pronouns, 29; verbs, 30; and prepositions, 9. The child's proneness to omit articles reduced his score on the Binet test because he failed to include them in sentences he was to repeat. Seventeen references are included.—M. O. Wilson (Oklahoma).

1571. Court, S. E. A. The growth of a small boy's linguistic interest. *Proc. Okla. Acad. Sci.*, 1927, 7 (*Univ. Okla. Bull.*, N. S. No. 409), 224-234.—This study is based on the pedagogical principle that the educational activities of the child should be chosen from among the interests natural to his age. All language activities reported here resulted from spontaneous interests of the author's son. They are grouped under four heads: (1) exploratory; (2) experimental; (3) humorous or playful; and (4) literary. (1) The exploratory interests consisted of noticing and gathering facts about language. At the age of about two and one-half years he was trying to master grammatical forms to the extent that he attempted to secure number agreement of noun and verb in a sentence, for example, "What are delishes?" (delicious). At three and a half he began the spontaneous study of word forms and word analysis, and discovered analogous phonetic elements in a number of familiar words. Early in the sixth year his interests included the meanings of words, although there was some trend in this direction as early as two and one-half. Later in the sixth

a synthetic tendency was shown to the extent that, after spontaneously learning the alphabet, he began to construct words and sentences from alphabet blocks. His experiences with the typewriter also led to exploratory linguistic activities; these are discussed in another article. (2) The experimental interests involved such activities as composing stories, making rhymes, verse-making, improvising songs, making finger alphabets, secret language, and modified English language, which consisted in substituting some sound, as *sl*, before each word in a sentence uttered, and in constructing codes for writing and typing. This type of activity was begun about the fourth year and continued indefinitely. (3) The humorous and playful activities included the use of puns, charades, conundrums and jokes of his own invention as well as the appreciation of those heard from others. (4) The literary group included his attitude toward the printed word, the development of a taste for reading, establishing literary values and expressing opinions as to literary worth of what he read. Many books were re-read many times, some as many as fifteen times. He was quite positive of the quality of his more familiar readings. A bibliography of six titles concerning the same boy's mental growth are appended.—M. O. Wilson (Oklahoma).

1572. Denisov, L. [The study of the interests of adolescents and the education work in the schools.] *Prosvetichenie na Urale*, 1930, No. 10. Sverdlovsk.—The research station for social education conducted an investigation for two years on the children in the 4th, 5th, 6th, 7th and 8th grades. The author admits the unreliability of the questionnaire method, but nevertheless believes that because of the ease with which it can be given, it could be used in the public schools without difficulty. The author decided that such investigations should be undertaken at the same time in more schools, thereby measuring the influence of a wider environment, such as the worker town, the city, the entire collectivistic radius, the town, etc., instead of only the influence of the family or the school.—K. Anson (Moscow).

1573. Eng, H. The psychology of children's drawings. New York: Harcourt, Brace, 1931. Pp. viii + 223. \$3.75.—The author observed and collected specimens of the drawing of her niece from the first stroke of the pencil in the tenth month up to the eighth year. The first half of the book is a reproduction and discussion of a carefully selected series of the drawings in chronological order. The characteristic feature during the first and second year was found to be scribbling—first wavy, then circular, then variegated, and finally with a suggestion of the use of the "human formula." In the fifth year the drawings became imaginative and the first decorative work appeared; in the sixth, the outstanding feature was realism. In the seventh year the drawings became "more and more synthetic and logical," and the use of perspective was noted. In the eighth year there appeared, in addition to draw-

ing compositions, the drawing of single objects and of figures in pose and with gesture. The second part of the book is given to a psychological interpretation of what has gone before. Drawing development is discussed in relation to scribbling, formula, automatism, orientation, perspective, proportions, movement, color and ornament. The author points out the importance of children's spontaneous drawings as an expression of mental development. In a final chapter on children's drawing and folk art, it is shown how paleolithic art developed, as did the child's, from scribble to formula, using the animal rather than the human formula, and showing more richness and maturity than do children's drawings. Throughout the book references are made to observation of other students of the subject. At the close of the work there is a five-page bibliography.—*M. Goodrie (Clark)*.

1574. Friedl, B. C. *Les idéals des enfants*. (Children's ideals.) Paris, 1931. Pp. 78.—The author gives the results of an investigation on the ideals of children attending the elementary and secondary schools in Urbana, and of children in various schools in Germany, Austria, Belgium, and France.—*Math. H. Piéron (Sorbonne)*.

1575. Gesell, A. *The study and guidance of infant behavior*. In *Psychology at Work*. New York: Whittlesey House, McGraw-Hill, 1932. Pp. 32-43.—Under standardized conditions of observation, sound films make possible a precise and complete record of infant behavior, measurable relative to established norms. In this way the significance of growth can be appreciated. Co-twin control experimentation yields some of the most valuable results in the study of maturation.—*O. L. Harvey (Cambridge, Mass.)*.

1576. Goldberger, M. *Miben és miért tér el a mai fiatalság lelki élete a háboru előttiétől*. (How and why does the mental life of present-day youth differ from pre-war life?) *Gyógyászat*, 1931, No. 40-42.—There are to be found in the mental life of the youth of to-day (1) qualities of positive value, showing progress from the standpoint of the individual and of humanity; (2) qualities of originally sound nature, but distorted and degenerated by external influences; and (3) qualities of negative value, inferior to those of pre-war youth. Economic conditions are aggravating the difficult work of improvement, and help is to be hoped for only from the emergence of a single moral system for the world.—*P. Ranschburg (Budapest)*.

1577. Goodenough, F. L. *Anger in young children*. Minneapolis: Univ. of Minnesota, 1931. Pp. xiii + 278. \$2.50.—The report of an investigation the aim of which was to study the frequency, duration, causes and methods of handling anger outbursts in children in the home. There is a brief review of the literature and an orientation of the present study in the literature. Certain mothers enrolled in college study groups voluntarily cooperated with the

investigators by making a record of their children's anger outbursts, together with the method of control and the outcome. There were 45 subjects. The author's tables show that the frequency of outbursts reaches its peak during the second year; after the second year the outbursts are more frequent and violent for the boys than for the girls. The duration of the outbursts varies but slightly during the first eight years, though the outbursts seem to take on subtle aspects as the age increases. Intrinsic factors showing a distinct relationship to frequency of outbursts are: "child's state of health, . . . length of time since last meal; and possibly fatigue"; extrinsic factors that seem important are size and composition of family group, and the presence of adult or child visitors in the home. There is a marked diurnal variation in the frequency with which anger is shown. From a tabulation of the relative frequency and duration of outbursts during various activities it is seen that the longest outbursts occur when the child is in bed, having his bath, or going to bed; the most frequent, during solitary play or play with playmates, or when the child is in bed. Among the two infants in the study the major sources of anger were conflicts over routine physical habits, problems of social relationship and minor physical discomforts. The relative effectiveness of the different methods of control was determined both statistically and subjectively. The author points out the importance of consistency in discipline, of preventive as against corrective methods of control, of using the daily schedule only as a tool, of the spirit of tolerance and the feeling of security in the home. A 23-page bibliography.—*M. Goodrie (Clark)*.

1578. Gottstein, W. *Die Erfolge der Erholungsfürsorge im Kindesalter*. (The success of recreation in childhood.) *Monatssch. f. Kinderheilk.*, 1931, 49, 108-129.—The author makes use of the following criteria to determine the success of recreation: (1) the effect of recreation on weight; (2) its effect on the individual's efficiency. He then considers (a) the immunological changes (resistance to contagious diseases); (b) the influence of so-called anemia; (c) the effect, in so far as is measurable, on the efficiency of the body; and (d) determinable psychic changes. He further looks into the question of recreation as a need or outlet; the establishment of local recreation centers, as day nursery schools, is therefore thought of. From his experience the author names three conditions which must be fulfilled in order to have a successful recreation center: (1) the choice of a favorable home; (2) the grouping of the children; and (3) the necessary consideration of the training of working children in homes.—*W. Nolte (Berlin)*.

1579. Gur-Gurewitsch, W. M. [Suicide among children and youth before and after the revolution period.] *Pedologiya*, 1930, 7, No. 1.—The number of suicides among growing children and adolescents has fallen sharply in comparison with the number

which occurred before the revolution. The cases of suicide in the worker class are almost non-existent. The town has a considerably lower percentage of suicides than has the city. Particular cases among city school children are to be explained exclusively as the result of lack of congeniality and insufficient work on the part of the youth clubs and pioneer organizations in these schools. This precipitous drop in the number of suicides in comparison with the pre-revolution period is doubtless due to the beneficial influence of the revolutionary social environment and the communistic system of education.—K. Anson (Moscow).

1580. Hetzer, H. *Seelische hygiene-lebenstüchtige Kinder*. (Children psychohygienically fit for life.) (2nd ed.) Dresden: Kleine Kinder, 1931. Pp. 90. M. 2.00.—In this book are reported for parents and educators the important results of much psychological observation and experimental work with children of pre-school age. The chief point of view is that education has to follow the child's development. The first part of the book describes the mental hygiene of a child in the first year of life. We hear how long at a time the child must have tranquillity and freedom from disturbance for his play, what kind of toys he must have, and in what ways the grown-up should have contact with him. The guidance of play and of language and social behavior, and the development of obedience and understanding of tasks are correspondingly detailed for the second and third year of life in the second part of the book. There the importance of the period of obstinacy and the first expressions of the will is pointed out. The third part treats the mental hygiene problems of the child between three and six years, the indispensable adherence to a group of children, the problems of play, tattling, and particularly the question of school maturity.—H. Hetzer (Elbing).

1581. Holz, G. v. *La théorie de l'adolescence en Allemagne*. (The theory of adolescence in Germany.) *Ann. de l'enf.*, 1931, 5, 933-937.—The impetus given to differential psychology and the abundance of data gathered have given rise to efforts at systematization, whereby the psychology of adolescence has been rated as an independent branch of the section of psychology dealing with various ages and groups. The author emphasizes the work of Ch. Bühler and W. Stern.—*Math. H. Piéron* (Sorbbonne).

1582. Ivanov, G. P. [The reading interests of students in the high school in the light of pedology.] (Scientific publications of the Saratov State University, faculty of pedagogy.) Vol. 8, No. 1. Saratov: 1930.—The information was gathered in 1928. 1440 questions from the students in the high school (in Saratov itself and from a nearby town) and 218 from the Saratov worker faculty were obtained. The conclusions of this author are as follows: (1) The reading interests of high school students develop in a very decided orderly fashion. (2) The greatest

change in interests occurs in the 5th, 6th and 7th classes (age 13-15-16), the age of the storm and stress period of biological development. (3) The chief factors in this change are: the deep changes in the life of the student, which are the result of the biological and social upheaval; and the influence of the environment. (4) The extraordinary effect of the school. (5) The intense reliance on art literature as "the means of learning about life."—K. Anson (Moscow).

1583. Jones, H. E. *Dextrality as a function of age*. *J. Exper. Psychol.*, 1931, 14, 125-143.—Five handedness tests were given to 60 children $1\frac{1}{2}$ to $5\frac{1}{2}$ years old. A dextrality ratio was computed, representing the fraction of the total time the R hand was used in the tests (form boards, building blocks, etc.). The values found for the four age groups were: .67, .69, .75 and .81.—S. Renshaw (Ohio State).

1584. Koch, A., & Preskurnina, Z. [An attempt to study the motor development of children and adolescents.] *Pedagogiya*, 1931, No. 3.—The writers describe the results of an experimental investigation of the motor behavior of children and adolescents by means of a special apparatus. Methodological, pedagogical and educational conclusions are drawn.—K. Anson (Moscow).

1585. Kupky, O. *Zauberglauben und Denken im Kindesalter*. (Magic beliefs and thoughts in childhood.) *Wiss. Beil. d. Leipziger Lehrerzeit.*, 1931, No. 62, 489-496.—A. Römer (Leipzig).

1586. Levi, L. *Esperimenti pedagogici sui ragazzi anormali della colonia medico pedagogica di Marocco*. (Pedagogical experiments on abnormal boys from the medico-pedagogical colony in Morocco.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 198-199.—A. Angyal (Turin).

1587. Levy, J. *A quantitative study of behavior problems in relation to family constellations*. *Amer. J. Psychiat.*, 1931, 10, 637-654.—A group of 700 "problem" children were studied to test the thesis of some psychiatrists that size of family and ordinal position within the family are factors in determining behavior deviations among children. The study was carried on in Chicago (Institute for Juvenile Research). Figures were available making possible a check upon the investigated group by a random sampling from the normal population of Chicago. Among the findings are: distribution of behavior problems was independent of size of family; in a small rich community, families in which the only child is a boy produce problem children more frequently than other size families; in such a community the second-born child is more frequently a behavior deviate than children in other ordinal positions. In a large city, boys are brought to the psychiatrist more than twice as often as girls; the first-born is a problem more frequently than other children. Only children are more often troubled by scholastic difficulties than those with siblings; they

commit delinquencies more often than children with only one sibling. But delinquency in children is most frequent in large families.—*S. J. Beck* (Boston Psychopathic Hospital).

1588. Lukács-Szász, I. *Menyiség. Egy kis gyermek fejlődéstörténetéből. Az élet kezdetétől az 1 éves és 5 hónapos korig.* (Quantity. From the history of the evolution of a little child. From the beginning of life until the age of 17 months.) *Magyar Gyógypedagógia*, 1931, 118-124.—Quantity is the repetition of spatial or temporal identities or resemblances in mind. Reiteration in time appears with the child earlier than that in space, but anything to reappear must first disappear. The occurrence of deficiency being painful, the basis of quantity is emotional. At the age of two months the daughter of the author shows the first signs of a sensation of temporal deficiency in instinctive life, and after two months the first signs of temporal reiteration. From five months onwards is to be seen the development of the emotion of deficiency in space and in resemblance. From 8 months temporal renewal shows the first quantity-like relations and at the age of fourteen months spatial resemblance appears quite clearly and with quantitative relations, and the girl is using words for defects in space. Simultaneously also the occurrence of quantity, the summarizing (integration) of things in quantitative units has ensued. This development proceeds in a rhythm of three-month periods. The author gives a series of examples for all the above-mentioned different phases.—*P. Ranschburg* (Budapest).

1589. Meek, L. H. *Psychology and the preschool child.* In *Psychology at Work*. New York: Whitteley House, McGraw-Hill, 1932. Pp. 3-31.—In kaleidoscopic fashion, and with a selected bibliography of about 50 items, the author surveys present-day research in preschool education, under such headings as: scales of mental development; learning and maturation; and language. She points out that the main characteristics of modern research in this field are: that it is a study of normal children; that it is genetic in approach; that it attempts to integrate the contributions of related fields; and that it attempts to build up facts usable by parents, teachers, etc.—*O. L. Harvey* (Cambridge, Mass.).

1590. Miller, G. F., Miller, M. D., & Nice, M. M. *A boy's vocabulary at eighteen months.* *Proc. Okla. Acad. Sci.*, 1923, 3 (*Univ. Okla. Bull.*, N. S. No. 271), 140-144.—This report concerns the vocabulary development of the son of the Millers, the report having been prepared by Mrs. Nice. The child was healthy and large for his age, walked at eleven months and passed all of the three-year Binet test (except sex) and several of the tests for years four and five at the age of two years, giving him an IQ of 166. The report gives a complete analysis of the development of the vocabulary, showing the specific words used at various ages. A list of six references is appended.—*M. O. Wilson* (Oklahoma).

1591. Montelli, A. K. [The investigation of the social interests of school children in the high school.] *Pedologiya*, 1930, 1, No. 7.—The author of this article discovered the interests of students while he told the story of the magic cap. The students were asked, "What would you do with the magic cap?" In spite of a number of defects, this method revealed very worthwhile aspects, since it stimulated the children to make detailed and significant assertions. The author brings forth a whole series of answers taken from the collection of 1554 answers which had been assembled by him. He analyzes the number of assertions, and compares the results with the analogous assertions concerning the social interests of Russian children before the revolution and the first year after the revolution, and comes to the following conclusion: the sensible, social interests of present-day adolescents with their concrete life problems and their desire for knowledge, engrossed entirely with social concerns, contrast distinctly with the colorless background of life weariness, timid, sorrowful, lonesome thoughts, vague erotic reveries, miserable monotonous thoughts, which were revealed in an investigation conducted by a few Russian psychologists on school children before the revolution—this background being clothed by the children in grandiloquent and pompous words.—*K. Anson* (Moscow).

1592. Moore, E. S. *The development of mental health in a group of young children. An analysis of factors in purposeful activity.* *Univ. Iowa Stud.: Stud. Child Welfare*, 1931, 4, No. 6. Pp. 128.—The purposes of this study were (1) to find out the extent and manner wherein young children show individual differences in those modes of behavior which are essential to their mental health; (2) to measure some of the environmental factors which influence their personality; and (3) to evaluate these factors in terms of their effect upon personality development. The investigation was centered chiefly upon initiative, creative ability, perseverance, self-reliance and friendliness. A group of 20 children two and three years of age was studied intensively, with supplementary studies of additional children. Five methods of approach were used: controlled experiments, a rating scale, a daily checking record of teacher-child relationships, observations of the child while at play in the preschool group, and home visits over a consecutive period of 48 hours. Wide individual differences were found. Children as young as two and three years of age had already established very different patterns of behavior in such aspects of their mental health as initiative, perseverance, creative activity, self-reliance and friendliness. Some children were assertive to the disregard of the rights of others, some were submissive under similar circumstances. Some children exerted much effort to attain their purposes, others little. The creative activity varied from the child who spent more time at dramatic games and painting than at any other activity, to the child who spent more time swinging

or playing with the balls, neither of which calls for much planning. Many differences were found in the environmental influences reacting upon individual children. The range of scores in material provisions of the home for physical health, for instance, was from 38 to 93, with a mean of 80.5. Scores on material provisions for mental health ranged from 17 to 57 and on parental methods of control from 41 to 72. Each child in the group appeared to have a different relation with the teachers. The data revealed no relationship within this relatively homogeneous group between the economic adequacy of the home and the child's stability in the school.—B. Wellman (Iowa).

1593. Myers, G. C. *Developing personality in the child at school*. New York: Greenberg, 1931. Pp. xv + 375. \$2.50.—This book considers ways and means for teachers to help children in school to adjust normally to other children and to grow emotionally and mentally in the most wholesome way. Practices common in all the grades of schools are examined and the factors which do not contribute constructively to the upbuilding of the personalities of children are pointed out, together with the reason they are not constructive, and better practices are suggested. Myers points out that the "task of the school is to help the child make the transition from satisfactions that are almost entirely on the level of emotional dependence on other individuals to satisfactions based to a large degree on achievement. Therefore, the wise teacher aims always to guide her pupils so that they will grow increasingly self-reliant, intellectually and emotionally." Some of the subjects discussed from the viewpoint of mental hygiene to clarify the idea of right guidance toward self-reliance are: Barriers to personality growth in school, Personality and school practices, Teaching tattling at school, Speed in school work, School fears that affect personality, Speech and personality in the school, The pupil's personality and the teacher's human frailties, Personality and human frailties in the supervisor, Success and failure in relation to personality, High intelligence and personality, Escapes, Physical welfare and personality, The teacher's physical and mental health, and Behavior problems of school children. In his introduction to the volume, M. V. O'Shea says: "Any reader who does not agree with Dr. Myers in his appraisal of present-day tendencies in teaching will be benefited by noting Dr. Myer's point of view and his contention that everything that happens in a pupil-teacher and pupil-pupil relationship plays a part for good or ill in affecting a pupil's personality and mental health."—R. White (Worcester, Mass.).

1594. Nice, M. M. The speech development of a little girl. *Proc. Okla. Acad. Sci.*, 1924, 4 (Univ. Okla. Bull., N. S. No. 322), 147-168.—This is the history of development of the vocabulary of the writer's daughter. Although the child was large and healthy, she failed to utter a single word until twenty months of age. However, she developed very rap-

idly from this time and at the age of three years her vocabulary excelled that of the children reported by Pelsma and by Bateman, who began talking at ten months. A detailed account is given of the words and sentences used at the ages of 26, 30, 36 and 48 months. These words are analyzed as to parts of speech, abstractions, time, space, personal experiences, indoor environment, outdoor environment, people, pictures and stories. Subsequent tests with the Stanford vocabulary norms gave her a vocabulary of 3600 words at her fifth birthday (eighth-year norm), 6480 words at her eighth birthday (eleventh-year norm) and 9000 at her ninth birthday.—M. O. Wilson (Oklahoma).

1595. Popova, O. [Concerning peculiarities in the thought process of adolescent farm youth.] *Pedologiya*, 1930, No. 1.—Using a series of tests for the investigation of the thought process which were compiled by Aryamov, an examination was given to 120 adolescent farm children, aged 14-18. The results were correlated with the estimates of teachers. This analysis showed, in many cases, a certain inexactness in abstraction, as well as confusion in the thought process. For the moment the proportion of scattered material permits no more explicit conclusions.—K. Anson (Moscow).

1596. Rybnikov, N. A. [Adolescence and its study. A bibliographical abstract.] *Pedologiya*, 1930, 1, No. 7.—K. Anson (Moscow).

1597. Sagorowski, P. L. [Concerning the methods used in studying the behavior of youth.] *Psikhologiya*, 1930, 3, No. 1.—The author is concerned with the present foreign methods of investigating the attitudes of adolescents and with a critical analysis of these methods. He describes the *Verstehensmethod* of Spranger, Weigl and Classen, the note-taking methods, the use of diaries, the method of comparative observation, and the experimental investigations, such as the test and clinical methods. The author believes it to be injudicious to abandon the earlier psychological methodology. Up to the present time, the examination of the personality as a whole has been but an ideal to contemplate. For the investigation of the higher age level, various psychological methods can be used, yet the purely psychological methods also closely approximate the scientific methods. Of particular importance are the so-called clinical investigatory methods of studying youth—that is, the examination of children by various methods over a comparatively long period of time. The clinical investigations of children in their general form have been established now-a-days, but they need exhaustive revision.—K. Anson (Moscow).

1598. Schmidt, F. A 9-14 éves fiuk jellemfejléséről. *Katholikus nevelés*, 1931, No. 1. Budapest.—Among the educative factors of character with boys of 9-14 years besides the training of activity, independence, and will, religion must find its place also to assure the harmony of life by means of supernatural aims.—P. Ranschburg (Budapest).

1599. Smirnov, A. A. [The psychology of the child and the adolescent.] Moscow: Rabotnik Prosvet. Pp. 270.—This work can be classified as a textbook, containing, for the most part, a critical popularization of the common theories of foreign authors. There is no concrete analysis of the children of the present Soviet Union with their socialistic upbringing. The book has been subjected to sharp criticism on the part of the psychologists and pedagogists of the Soviet Union, with which criticism the author is in agreement.—K. Anson (Moscow).

1600. Tugendreich, G. *Kindererholungsfürsorge*. (Child guidance.) *Monatssch. f. Kinderh.*, 1931, 49, 89-107.—The author inquires (1) what is a neglected child? (2) How can and will child guidance work? (3) How will the success of the upbringing be determined? The three questions are therefore concerned with the etiology, diagnosis and therapeutics of the need for guidance.—W. Nolte (Berlin).

1601. Tuszkai, Ö. A serdülő kor. Orvosi és neveléstani szempontból. (The age of puberty from the medical and pedagogical standpoints.) Budapest: 1932. Pp. 1-144.—Anatomy and physiology of puberty; associated bodily phenomena; psychotic and allied complications; psychical phenomena; suicide in puberty; criminality in puberty; psychological-pedagogical classification of mental symptoms in puberty; sentimentalism and romanticism; education of the will; character; educational effects of hygienic teaching; hygiene in puberty; the question of sexual enlightenment; masturbation and medical advice; the question of coeducation; sexuality in children of today and sexual pedagogy; conflicts in the choice of career; final observations.—P. Ranschburg (Budapest).

1602. Vygotski, L. S. [The pedagogy of adolescence.] Moscow: 1929-1930.—A detailed theoretical criticism of foreign theories and of the foundation of Russian theory.—K. Anson (Moscow).

1603. Wellman, B. L., Case, I. M., Mengert, I. G., & Bradbury, D. E. Speech sounds of young children. *Univ. Iowa Stud.: Stud. Child Welfare*, 1931, 5, No. 2. Pp. 82.—The development of preschool children's ability to produce correctly the sounds of the English language was studied. The investigation aimed primarily (1) to develop a technique for the study of the young child's ability to produce sounds, (2) to establish tentative norms, (3) to study age, sex, and individual differences, (4) to study the interrelations of abilities on the different sound groups and the relation of speech sound ability to other abilities and characteristics, and (5) to analyze errors. 204 children from two to six years of age were tested through presentation of pictures and phonetic recording of sounds used. 133 sounds were tested. The reliability of the test on number of sounds given correctly was $.96 \pm .01$ for children from two to six years of age. Significant age differences were found. At three years of age 82.5%

of the diphthongs were given correctly, 75.2% of the vowels, 68.4% of the consonant elements, and 51.8% of the consonant blends. At five years the percentages varied only from 87.2 to 90.0. There was wide variation in the difficulty of specific sounds. Consistent ranking of a sound through all age groups appeared to be the exception. Final sounds were more difficult than initial or medial sounds. Nasals were easier than stops and fricatives. Girls tended to be superior to boys on consonant elements. A high relationship between age and ability to give the sounds correctly is indicated by the correlation $.80 \pm .03$. The correlation with mental age was $.71 \pm .04$. When mental age was held constant, the correlations with chronological age were still significant (.31 to .51), but when chronological age was held constant, there was no correlation with mental age. No relationship was found with introversion-extroversion ratings, size of vocabulary, number of older children in family, height or sitting height. Some relationship was indicated with weight-height index and possibly also with two motor tests, the tracing path and perforation tests, although the relationship for the latter was not determined within a narrow age range.—B. Wellman (Iowa).

1604. Witty, P. A. A study of deviates in versatility and sociability of play interest. *Teach. Coll. Contrib. Educ.*, 1931, No. 470. Pp. ix + 57.—On the basis of the results of the Lehman Play Quiz given twice (September '26 and '27) to 5000 fifth and sixth grade pupils, 6 groups were selected for experimentation: (1) 100 versatile (participated in largest number of games), (2) a control group (average participation), (3) 100 non-versatile (participated in fewest games), (4) 100 social (engaged in largest number of activities with others), (5) a control (average social), (6) 100 non-social (least social). Sex, age, and placement in school were matched for the groups. Additional measurements included: Stanford Achievement and National Intelligence tests, questionnaire to teachers for rating 9 traits of character (reliability .87), academic record, and physical development measurements. Special attention is paid to reliability of measures. Extreme social and versatile groups are not superior physically. "Collectively, these data suggest that non-social children are not inferior to moderately or extremely social children in the adjustment which they effect to life situations." The bibliography contains 11 titles; Lehman's play quiz is given in an appendix.—J. M. Stalnaker (Chicago).

[See also abstracts 1284, 1291, 1319, 1326, 1345, 1385, 1394, 1398, 1439, 1442, 1550, 1555, 1557, 1558, 1651.]

EDUCATIONAL PSYCHOLOGY

1605. Anderson, J. E. Nursery education. (Report of White House conference on child health and protection, committee on the infant and preschool child.) New York: Century, 1931. Pp. xxi + 187.

\$2.00.—A survey of day nurseries, nursery schools and private kindergartens in the United States. The questionnaire method, supplemented by a few personal visits, was used. A description is given of a typical and a selected institution of each of the types surveyed. Detailed data are given under the following headings: auspices, support, tuition and purposes; number of children, sessions and attendance; buildings and equipment; personnel; requirements for admission; medical facilities; educational facilities; educational program. There is a chapter on recommendations.—*M. Goodrie (Clark).*

1606. [Anon.] The results of the work of the division of psychology. *Teach. Coll. Rec.*, 1931, 33, 100-112.—A report of the major investigations made by the Institute of Educational Research (Columbia Teachers College) since its organization, and its resulting publications. The major investigations reported are: (1) the psychology of algebra; (2) studies in vocational guidance; (3) new-type examinations in algebra and ancient history; (4) cooperative investigations for the Classical Inquiry; (5) fundamental principles in mental measurement; (6) mental discipline in high-school studies; (7) the psychology and education of gifted children; (8) character education; (9) psychology of international auxiliary languages; (10) adult learning; (11) the fundamentals of learning; (a) studies in English vocabulary and English construction; (b) intelligence tests for college graduates.—*J. M. Stalnaker (Chicago).*

1607. [Anon.] Federal relations to education. Report of the National Advisory Committee on Education. Part I: Committee findings and recommendations. Washington: National Capital Press, 1931. Pp. 140.—This is the report of the president's committee of 52, organized in May, 1929, to investigate and make recommendations regarding the present status of governmental participation in education. Part I is divided into two sections, the first presenting such essential facts, principles, and arguments as are required to make clear the general policies and procedures arrived at by the committee; and the second, the recommendations of the committee with regard to the governmental machinery necessary to realize the policies advocated. Chief among these recommendations is one providing for the creation of a department of education, with a secretary at its head, to be established in the federal government, as a helpful means of coordinating those governmental agencies charged with educational functions. 8 of the 52 members dissented from the majority report, the representatives of Catholic education and the representatives of negro education, both of which groups submitted minority reports which are included.—*L. A. Averill (Worcester Normal School).*

1608. Baranyay, E. A novelisélektani kutatás magyar feladatai a tanítás lélektana körében. (Hungarian problems of educational psychology in

the range of the psychology of teaching.) *Acta litt. ac scient. reg. Univ. Hung. Francisco Josephinas. Sectio Philosophia III. 2.* Szeged, 1931. 4 pengő. Pp. 1-157.—(1) Scope and subject of educational psychology. (2) Aim of research in educational psychology. (3) Organization and range of research in educational psychology. (4) General and special problems of research. (5) General program of a Hungarian institute for educational psychology and expected results. (6) Delimitation of the scope of the work of this institute. (7) Method of the study. (8) Division of the material; (A) External educational situation. (I) Aims of teaching. (II) Subject matter of teaching. (III) Conditions of teaching. (B) Mental functions: (I) Mental dispositions. (II) Mental processes. (9) Other conditions connected with the work in school. Appendix: English extract (147-156). (10) Program of research in the psychological laboratory of the University of Hamburg. (11) Bibliography.—*P. Ranschburg (Budapest).*

1609. Bassett, C. The school and mental health. New York: Commonwealth Fund, 1931. Pp. 66.—The eight articles in this pamphlet (seven of which are reprinted from the *Journal of the National Education Association*, October 1930-April 1931) point out the school's responsibility in promoting mental health in the community. The teacher must approach the individual child with interest and affection rather than with emotional bias or preconceived idea; she must come to know the child's physical condition, his intellectual status, his social and emotional nature, as well as his home and parents. The school must make some provision for testing the ability of children and for providing a curriculum which gives every child a possibility of achievement within the limits of his own ability. Further, there must be an appreciation of the problem presented by the timid, fear-beset child who, though ostensibly a model pupil, may be in urgent need of sympathy and encouragement in order that he may develop even a modicum of self-confidence. But, whatever the problem, it must be remembered that parental handling—especially during early years—and teachers' personalities as the child meets them in the classroom are very real factors for good or ill both in the genesis and in the prognosis of the child's problems. In order to meet these special needs of the individual child the progressive teacher must broaden her training by the addition of knowledge gleaned from the fields of medicine and hygiene, psychology and mental testing, mental hygiene and mental disease, as well as sociology and cooperation with the particular clinical facilities available. A classified bibliography of 42 titles is provided.—*F. D. McTeer (Detroit City College).*

1610. Breslich, E. E. Algebra survey test. Bloomington, Ill.: Public School Publ. Co., 1931.—Two forms for the second semester of first-year algebra (See V: 3262).—*M. B. Jensen (Western Kentucky State College).*

1611. Breslich, E. R. *Geometry survey test*. Bloomington, Ill.: Public School Publ. Co., 1931.—Two forms for the second semester of plane geometry at the high school level (See V: 3262).—M. B. Jensen (Western Kentucky State College).
1612. Briggs, D. H., & Jordan, A. M. *Influence of the assignment on learning*. *J. Educ. Psychol.*, 1931, 22, 659-666.—Five assignment procedures have been compared, with fifth, seventh and ninth grade pupils as subjects. Suggested study procedure, teaching of meanings of words, and developing the general background of the material to be learned produce an experimental gain by one or more measures. Pertinent study questions and making the pupils aware of the personal value of the materials yield no reliable gain.—J. A. McGeoch (Missouri).
1613. Brown, C. M. *An evaluation of the Minnesota Rating Scale for Home Economics Teachers*. Minneapolis: Univ. of Minnesota Press, 1931. Pp. 29. \$50.—Presents results of a detailed statistical study of the validity and reliability of the scale, and concludes that while it appears reasonably satisfactory, further validation is necessary. When re-ratings were made by the same individual, the reliability was about .95. Correlations between different raters were lower.—L. A. Averill (Worcester Normal School).
1614. Butler, N. M. *Radio's new opportunity in education*. Chicago: Univ. Chicago Press, 1931. Pp. 6.—An introductory address for a series of radio addresses on economics and psychology. The author stresses the educational value of the addresses and briefly designates the function of economics and psychology in the development of social and political institutions.—C. C. Neet (Clark).
1615. Cook, R. C. [Ed.] *Who's who in American education; a biographical dictionary of eminent living educators of the United States*, Vol. 3, 1931-1932. New York: R. C. Cook Co., 1931. Pp. 565. \$8.50.—R. R. Willoughby (Clark).
1616. Cook, W. W. *The measurement of general spelling ability involving controlled comparisons between techniques*. *Univ. Iowa Stud.: Stud. Educ.*, 1932, 6, No. 6. Pp. 112.—An investigation was made of the technical procedures involved in test construction, with spelling chosen as the field for investigation. Three major problems were dealt with: (1) the selection of test items with regard to difficulty and discriminating power, (2) the selection of a test technique for presenting the items, and (3) a method of determining the optimum number of items to be included in a test which is to be administered in a given length of time, or the optimum administration time for a test of a given length. Three experiments were conducted and a number of conclusions reached regarding each of the three major problems. Some specific conclusions were also reached in regard to spelling ability per se.—B. Wellman (Iowa).
1617. Douglass, H. R. *Selecting good college risks*. *School & Soc.*, 1932, 35, 140-147.—A review is given of the studies concerned with the question of the relation between college success and the number and nature of high school courses offered for admission to college. It is concluded that the present practice of selecting college entrants on the basis of minimum credits in certain fields of high school work has little to recommend it. Of greater predictive value are psychological examination scores, grades made on courses in the high school, and principals' ratings on college promise.—H. L. Koch (Chicago).
1618. Eurich, A. C. *The reading abilities of college students*. Minneapolis: Univ. of Minnesota Press, 1931. Pp. xv + 208. \$2.50.—An investigation at the University of Minnesota seeking to evaluate "the efficacy of reading, vocabulary, and study exercises in improving reading comprehension, rate of reading, specific vocabulary, general vocabulary, retention in reading, English composition, general scholarship, and general mental ability as measured by the Minnesota College Ability Test." A summary of important efforts in the field revealed lack of adequate controls. Control groups and experimental groups of equal sizes were maintained throughout this series of experiments. The construction, forms, procedures and standards are presented from the Minnesota Reading Examinations, the Minnesota Speed of Reading Test, a Studiousness Rating Scale and a Vocabulary Test. The techniques and results of the four experiments were so similar that the author was able to treat them collectively in his summary. No consistent sex differences were found. Many of the results were not significant, the results giving valid conclusions only as to vocabulary enlargement. The "results indicate a true difference between the experimental and control groups in one function after the period of training"—that of enlargement of general vocabulary. Some transfer of specific vocabulary under training to general vocabulary is noted, after training, but it does not persist. This specific vocabulary improvement does persist and is of value in enlarging the general vocabulary as such. The author raises the question of the advisability of giving "definite vocabulary instruction in all the special fields as a part of the diversified courses being taught." The question is raised whether such procedure might not enlarge the vocabulary of the individual far enough to omit certain introductory courses given largely as prerequisites with this purpose in mind. The author cautions against fallacious interpretation of improvement in reading, English composition, and general scholarship on the basis of training periods of short duration, since these results show both groups improving almost in proportion. Several important problems for further research are indicated.—R. A. Brotemarkle (Pennsylvania).
1619. Eurich, A. C. *Improvement in scholarship during the probationary period*. *School & Soc.*, 1932, 35, 129-134.—Students in the College of Edu-

education at the University of Minnesota who fail in one half or more of their work are put on probation. For one year a diagnosis of the difficulties of each individual in this probationary group was attempted and remedial training instituted. Comparisons of the probation students with appropriately selected control groups has led to the following conclusions: "(1) The reading ability of probation students is inferior to that of other students of equal mental ability who are succeeding in their college work; (2) poor students improve their scholarship during the probationary period; and (3) the improvement that was found does not seem attributable to the program of special training."—*H. L. Koch* (Chicago).

1620. *Flemming, C. W.* Pupil adjustment in the modern school. New York: Teach. Coll. Bur. Publ., 1931. Pp. xii + 94. \$1.50.—A brief presentation of the guiding principles and detailed methods employed in pupil adjustment at the Horace Mann School, the demonstration school of Teachers College, Columbia University.—*V. Jones* (Clark).

1621. *Gates, A. I.* Psychology and education. In *Psychology at Work*. New York: Whittlesey House, McGraw-Hill, 1932. Pp. 44-80.—Using case studies as illustrative material, the author discusses in a popular and interesting manner the applications of psychology in education. The topics selected for discussion are: the diagnosis of difficulties in the basic school skills (e.g., a case of reading disability); the diagnosis of general educational and personality maladjustments (e.g., a child of very high but not previously determined IQ develops regressive behavioral symptoms); the curriculum (the working out of a progressive school project: "The Circus"); and adult education.—*O. L. Harvey* (Cambridge, Mass.).

1622. *Gerberich, J. R.* Validation of a state-wide educational guidance program for high-school seniors. *School & Soc.*, 1931, 34, 606-610.—2300 seniors from 39 high schools in Arkansas took the American Council Psychological Examination, an English test and either a mathematics or a foreign language aptitude examination. The coefficients of correlation between the scores made on the American Council Psychological Examination and the average grade earned during the first semester of college work range for the student groups in the various colleges involved in the survey from .17 to .81. 9 out of 12 coefficients presented have a magnitude of .50 or greater. The scores on the English, mathematics, and foreign language tests when correlated with grades made on college courses taken in these fields, respectively, yield coefficients which scatter for the aforementioned disciplines from .40 to .77, from .59 to .64, and from .12 to .90.—*H. L. Koch* (Chicago).

1623. *Gergoe, E.* Az élet an én művem. (Life as my own work.) Budapest: Thalia, 1931. Pp. 1-109.—Life is to be self-planned—directed, educated and lived consciously. Preface. (1) Conscious life. (2) Life as work. (3) Planning of life. (4) Con-

servation of life. (5) Control and critics of life. (6) Three principles of life: attention, rhythm of life, breathing. (7) Self-control: principle of repose, contribution of fear. (8) Inhibitions of life: inferior life, dilution,—punishing the beloved. (9) Life and evolution. (10) Bodily bearing. (11) Philosophy of death: shortness of life and psychology, human immortality. (12) Toward superior life.—*P. Ranschburg* (Budapest).

1624. *Hastings, M. L.* Clasificación y estudio estadístico de 3719 alumnos de las escuelas secundarias de la ciudad de México por medio de exámenes mentales. (Classification and statistical study of 3719 students of the secondary schools of the city of Mexico, by means of mental tests.) Mexico City: Educacion Publica, 1931. Pp. 192.—The use of mental tests for the purpose of classification of pupils into mental ability groups has been an integral part of the first cycle of secondary education of Mexico since its organization in 1926. The schools of the first cycle correspond in general to the junior high schools of the United States, including the seventh, eighth, and ninth years of education, the chief differences being that they are non-coeducational and that their courses of study are definitely prescribed. All pupils, upon entrance to these schools, are required to take the mental examinations, and are classified accordingly. This book contains a statistical study of the results of these tests as applied for three consecutive years (1926-1928) by the same director and staff. Besides the study of the secondary school pupils, the book also reports two lesser studies which proved of assistance in the statistical evaluations; one is a study of an entire sixth grade, and the other includes all the members of *La Casa del Estudiante Indígena*, a group of pure Indians who represent 27 different tribes from 19 different states of Mexico. Thus the entire study includes the results of two well-known group tests, Army Beta and Otis Arithmetic Reasoning Tests, as applied to 3719 pupils. Comparisons with similar groups of pupils of the schools of the United States are given as to arithmetic means of scores of each test and of chronological ages; frequency distributions are studied in terms of means and standard deviations, as shown by frequency tables, frequency polygons and normal probability curves. Differences are revealed between the scores of the boys and those of the girls and probable reasons given. In general, the study shows that intelligence has been generously distributed among Mexican children. The differences from children in the United States are small. The study made of the group of pure Indians who had recently come from remote parts of the republic, many of whom were unable to speak Spanish, is of interest to students in the United States. The book contains many tables and twenty or more graphs, besides an introduction by Moises Saenz, the organizer of the secondary school system and the great educator of Mexico.—

M. L. Hastings (Office of the Secretary of Public Education, Mexico).

1625. Herbst, R. L. The functions of bureaus of research. *J. Educ. Res.*, 1931, 24, 372-376.—Results based upon a study of bureaus of research in 1929-1930 in cities of 100,000 population or less. An attempt is made to determine the functions actually performed, those which the directors believe should be performed, and the general order of the importance of these functions. Results of 12 questionnaires give achievement and mental tests first rank in the categories of functions performed, as well as in the category of proper functions. Then follow in order student classification, surveys, pupil personnel problems, organization and supervision of special classes, special investigations other than surveys, devising record and report forms, educational and vocational guidance, experimental study of curricular and instructional problems, test construction and educational information.—S. W. Fernberger (Pennsylvania).

1626. Hoffman, W. S. Occupations of parents of college students. *School & Soc.*, 1932, 35, 25-26.—A comparison is made of the occupations of the parents of the students attending the University of Pennsylvania in representative years from 1914 to 1931. It is noted that there has been a relative increase in the number of students whose parents follow the humbler occupations. It is apparent, however, that relatively more of the 1931 group are drawn from the upper percentiles of the secondary school graduating classes than was true in 1924.—H. L. Koch (Chicago).

1627. Hunsicker, L. A continuation study of overlapping of courses in departments of education. *School & Soc.*, 1932, 35, 165-166.—Students entering a certain course in educational measurements were given the same examination on the course content as were a parallel group of students who had completed the unit. All of those in the former group scored on the examination below the median of the latter group. The author feels, therefore, that she has demonstrated that the content to which she exposes her students is largely new to them. She commends her technique to those concerned with the overlapping of courses in departments of education.—H. L. Koch (Chicago).

1628. Kilzer, L. R. Supervised study for teachers and administrators in elementary schools, high schools and junior colleges. New York: Professional & Technical Press, 1931. Pp. xvi+332. \$3.25.—This book supplies, as well as a treatise upon supervised study, a considerable body of references and a summarization of numerous experiments, demonstrations, and tests by leaders in this work. Topics discussed include: the meaning of supervised study; the need for it; the present status in junior and senior high schools; objections that are made to its efficacy; results, both satisfactory and unsatisfactory, with explanations for the latter,

etc., etc. Much of the volume is devoted to the technique of introducing and administering supervised study in any school. There is discussion of discipline, of methods of training in effective study, and of individual differences. The appendix presents a considerable number of forms that have been proposed for use, or are being actually used, in supervised study centers. The bibliography, with brief annotations, numbers 280 titles.—L. A. Averill (Worcester Normal School).

1629. Kransee, V. v. Belehrungen für die reifende weibliche Jugend. (Instructions for growing girls.) Abenheim: Finger, 1931. Pp. 40. M. 0.40.—R. R. Willoughby (Clark).

1630. Kransee, V. v. Belehrungen für die reifende männliche Jugend. (Instructions for growing boys.) Abenheim: Finger, 1931. Pp. 40. M. 0.40.—R. R. Willoughby (Clark).

1631. Niederhöffer, E. v. Referat Dr. Cimbal (Altona) auf der Reichskonferenz evangelischer Mädchen Erziehungsheime 1931 über Heilpädagogik. (Report by Cimbal of Altona on the 1931 national conference of evangelical homes for delinquent girls on therapeutic pedagogy.) *Zentbl. f. Psychotherap.*, 1931, 4, 533-537.—Von Niederhöffer gives an approving review of Cimbal's report. The latter shows that psychoanalysis has opened our eyes to the importance of childhood experiences and the enormous responsibility of parents for juvenile delinquency. The purpose of their education is to develop ways of social adaptation suited to the individual child. Cimbal discusses prostitutes from the "best families." They are often students, and little is known about them because they are shielded by relatives. He considers that the fundamental reason why girls become prostitutes is that they are incapable of a normal mature love-relation, i.e., they remain at the primitive narcissistic level of childhood. As the love experience of a primitive undeveloped girl usually results in disillusion, she continues to seek relief from her tormenting urges. The cure of young prostitutes can be effected only by changing this attitude. An understanding approach on the part of the teacher is necessary to overcome the girls' suspicions, skeptical and antisocial attitudes. Although a practical acquaintance with psychoanalysis is necessary for the teacher, the author does not recommend its use for the pupils. He speaks of the "crushing" effect of the work on the women teachers in such institutions. It comes on after 3-5 years' service, and is so characteristic that it may almost be called an occupational disease.—M. E. Morse (Catonsville, Md.).

1632. Perkins, M. L. The teaching of ideals and the development of the traits of character and personality. *Proc. Okla. Acad. Sci.*, 1926, 6, Pt. II (Univ. Okla. Bull., N. S. No. 348), 344-347.—This is the report of an attempt of a class in "Personality and Character" to formulate a technique for determining the most desirable traits of personality and

character. The first step will be to determine all of the words in Webster's New International Dictionary which express traits and ideals. A tentative survey showed that there would be about 3000 such words when the task was completed. The next step would be to determine all adjectives descriptive of traits and all adverbs which modify action. From all of these would be eliminated the obsolete, rare and archaic words. Those remaining would be separated into a positive group, or those expressing desirable traits, a negative group or those expressing undesirable traits, an ambiguous group, and a group which might refer to traits that are colorless. The next step would be to reduce this total group by some arbitrary means to a number which would be convenient for intensive study and rating. By means of the consensus method a list of, say, 50 or more would be selected which would characterize the most important general traits. By such a technique it would be hoped that not only the general traits but those special ones needed in the common occupations and callings could be characterized.—*M. O. Wilson* (Oklahoma).

1633. Potthoff, E. P., & Corey, S. M. A standardized test in educational psychology. Bloomington, Ill.: Pub. School Publ. Co., 1931.—Two forms of three parts each: general educational psychology, psychology of learning, psychology of the school subjects. Validated by text-book analysis with reported reliabilities of .76, .74 and .78 (any two parts combined, .85; all parts combined, .91).—*M. B. Jensen* (Western Kentucky State College).

1634. Pressey, L. O. A class of probation students. *J. Higher Educ.*, 1932, 2, 508-510.—Reports of typical difficulties found among 204 freshmen placed on probation during the winter quarter of 1930 at Ohio State University. A non-credit class of three two-hour periods with specific assignments and individual help by assistants moving about the class gave opportunity for interviews at the beginning, middle and end of the quarter. A questionnaire at the beginning of the quarter, along with the interviews, revealed a large series of difficulties summarized as follows: physical difficulties, 29 types of problems; habits in study, 24; social difficulties, 27; emotional difficulties, 18; and in vocational adjustment, 24% of the group had "not yet seriously considered choosing a vocation," and 27% "were headed for an occupation for which they were obviously unfitted." The percentage of instances of the various problems ranged from 2% to 87% of the group. No student had a single difficulty, but the "study of a student reveals a constellation of troubles, no one of which is sufficient to put him on probation, but which in combination" militate against satisfactory work.—*R. A. Brotemarkle* (Pennsylvania).

1635. Pressey, S. L., & Pressey, L. O. Practical "educational engineering" in a teacher training course. *School & Soc.*, 1932, 35, 67-70.—The introductory course in educational psychology at Ohio State University, enrolling 200 students a quarter

and taught by 5 graduate students, was the object of the study. Identical pre- and post-instruction examinations were given the students to check on gains in information, general methods of instructor-student participation in the course were subjected to investigation, careful supervision of the instructors was attempted, and an intelligent individual approach to the student was essayed, use being made of elaborate personal histories and comments on instruction furnished by the members of the classes. The procedures described are alleged to have improved markedly the quality of the instruction, to have shown the teaching value of frequent examinations as well as personal interviews, to have revealed the very uneven preparation of the students for their work, and to have demonstrated that time spent in student committee work yields less than time spent under the guidance of an instructor in a class conducted according to the lecture-discussion scheme.—*H. L. Koch* (Chicago).

1636. Pringle, R. W. The psychology of high-school discipline. New York: Heath, 1931. Pp. xii + 362. \$1.60.—In Part I, *The Psychology of Conduct*, an analysis of conduct is presented in relation to the endocrine glands, to instincts and impulses, to habit and to will ("everything which makes us do what we do"). A discussion and classification of group problems concludes this section. In Part II, *Pupil Control*, there are presented analyses of (1) the causes of disorder, (2) control through subject matter, (3) direct control, (4) discipline as it relates to the study hall, (5) discipline as it relates to the assembly, and (6) discipline as it relates to extra-curricular activities; there is a rather complete treatment of (7) punishment and other means of control; an evaluation of (8) student participation, concludes this section. A bibliography and index are appended.—*F. D. McTeer* (Detroit City College).

1637. Ragsdale, O. E. Modern psychologies and education. New York: Macmillan, 1932. Pp. xviii + 407.—Part I is devoted to a consideration of psychological theories underlying education. Each chapter treats the topic historically and from the point of view of the dominant schools. Six schools are recognized: structural, functional, behavioristic, purposive, psychoanalytic, and Gestalt psychology. The topics treated in successive chapters are: child nature, the nature and function of modern psychology, survey of the modern psychologies, instinct, emotion, mental inheritance, learning, tests and measurements. Part II deals with current educational problems viewed in the light of modern psychologies. The chapters discuss individualized instruction, vocational and educational guidance, pre-school education, adult education, extra-curricular activities, physical and health education, the development of personality and character, mental hygiene, experimental education. Older and more recent viewpoints are considered, with principles which may now be accepted by educators summarized at the end

of each chapter. A final chapter gives a résumé of the whole. There are both author and subject indexes. While 91 authors are listed in the index, there are no direct citations of literature, and no bibliography. M. V. O'Shea writes an editor's introduction.—E. R. Hilgard (Yale).

1638. Robinson, F. P. Can college freshmen in the lowest tenth in reading be aided scholastically? *School & Soc.*, 1931, 34, 843-846.—About 40 freshmen who scored in the lowest tenth in comprehension on the Iowa Silent Reading Examination not only had their reading difficulties diagnosed by a clinician but they were given also individual remedial instruction for a half-hour period twice a week for 8 weeks. The academic progress of this group as well as their progress in reading was noted, comparisons being made between their performance and that of 95 men ranking with the lowest tenth in reading but receiving no aid. The author concludes that: (1) the remedial treatment results in marked improvement in reading ability as well as in school success; (2) intelligence and cooperation are factors conditioning the effectiveness of the instruction; and (3) the individual method of instruction yields greater returns than does the class method.—H. L. Koch (Chicago).

1639. Sartorius, I. C. Generalization in spelling. *Teach. Coll. Contrib. Educ.*, 1931, No. 472. Pp. viii + 65.—The purpose is "to make a comprehensive analysis of a carefully selected list of spelling words, with reference to the visual configuration of the words, their phonetic elements, the frequency and consistency with which certain rules can be applied to the spelling of the words, and the frequency of appearance of certain word elements which are commonly misspelled." Visual analysis gives the frequency of appearance and the grade placement of certain word elements. Phonetic analysis gives the frequency of word elements and their consistency of pronunciation. Application of rules to the list reveals grade levels and frequency of exceptions. The frequency of the word elements in which the common errors could be made is determined by grades. Ten conclusions are listed; seven practical uses of the analysis are suggested. "This study in no way settles the question of generalization." The bibliography contains 17 titles.—J. M. Stalnaker (Chicago).

1640. Sims, V. M. Essay examination questions classified on the basis of objectivity. *School & Soc.*, 1932, 35, 100-102.—The point is made that many examination questions not conforming in all respects to the form of the "new-type" variety are, nevertheless, highly objective. An analysis is made of a collection of superior questions gathered in 1922 by C. W. Odell from a large number of final examinations given in the elementary and high schools of Illinois. It is asserted that only about one third and one half of the questions garnered, respectively, from the elementary and high school tests might be called subjective. The recommendation is made that we dis-

tinguish carefully between the subjective and objective type of question, while retaining both; and that we develop more satisfactory scoring procedures, especially for the former.—H. L. Koch (Chicago).

1641. Smith, V. C. Sex differences in the study of general science. *Science*, 1932, 75, 55-57.—"The purpose of this study is to investigate sex differences in the difficulty of the course in ninth-grade general science, and variations in difficulty from one part of the course to another." 748 completion and recall questions, based upon statements found in textbooks of general science in common use, were given to 300 boys and 300 girls, students in schools in five northern states and one southern state. Questions were classified upon a basis of occurrence of statements in textbooks of physics, chemistry, etc. Percents of students who missed each question were calculated separately for boys and girls. A table is presented showing sex differences in percent of questions missed, classified according to type of material. Of 18 classes of material, three showed no significant differences, 13 showed differences in favor of boys, and 2 showed differences in favor of girls. Conclusions drawn include: "Physiography material shows no sex differences. Chemistry material shows significant differences in favor of boys. Physics material is much easier for boys than for girls. The subject as a whole is much easier for boys than for girls."—B. Casper (Clark).

1642. Strang, R. Knowledge of social usage in junior and senior high schools. *School & Soc.*, 1931, 34, 709-712.—An analysis of the returns from a test of knowledge of social usage given to 1614 junior and senior high school pupils revealed the following: (1) an increase in knowledge with grade from the seventh to the twelfth, and with age from the eleventh to the eighteenth year; (2) a relatively low rating for the over-age student in the seventh through the ninth grade; (3) a correlation of social knowledge score with IQ in the seventh, eighth, and ninth grades, respectively, of +.44, +.51, and +.33; (4) a significant difference, when occupational groups are compared, in favor of the children whose parents belong to the professional groups; (5) no consistent relationship between number of clubs in which membership is claimed and knowledge of social usage.—H. L. Koch (Chicago).

1643. Torgerson, T. L. Torgerson diagnostic teacher rating scale of instructional activities. Bloomington, Ill.: Public School Publ. Co., 1930.—M. B. Jensen (Western Kentucky State College).

1644. Williamson, E. G. An analysis of scholastic aptitude of freshmen in some private colleges in Minnesota. *School & Soc.*, 1931, 34, 674-680.—The investigation was undertaken to answer two questions: (1) Is the state-wide testing and guidance program for high school seniors in Minnesota resulting in the encouragement of high aptitude seniors and the discouragement of low aptitude seniors in their intention to enroll in college? (2) Is the

prognostic use of psychological ratings justified? For 1010 freshmen enrolled in Minnesota colleges in 1929 the following data were available: first-semester college grades, high school scholarship percentile rank, college ability test percentile rank, and college aptitude rating, the latter being an average of the two preceding ranks. It is concluded that for the prediction of the occurrence of satisfactory scholarship on the part of low aptitude students, the high school scholarship percentile rank and college aptitude rank are almost equally efficient; the college aptitude test, on the other hand, is considerably less efficient. For the prediction of superior scholarship on the part of the high aptitude college freshmen, the order of merit of the indexes mentioned above is the second, the third, and the first. Of the students in the upper quartile group in college aptitude 94.5% and of the students in the lowest quartile group 15.8% receive grades of C or better in college. The latter fairly high percentage of apparent success is attributed to the low scholastic standards of certain colleges. It is noted also "that the guidance program was successful in persuading a larger percentage of high aptitude students to go to college but that it had little deterring effect upon the potentially 'poor' college freshmen."—H. L. Koch (Chicago).

[See also abstracts 1337, 1378, 1404, 1572, 1586, 1593.]

BIOMETRY AND STATISTICS

1645. Guilford, J. P. A generalized psychophysical law. *Psychol. Rev.*, 1932, 39, 72-86.—Weber's law and the Fullerton-Cattell substitute law are special cases of Woodworth's generalized psychophysical law. This assumes that psychophysics measures errors of observation and that in observing larger magnitudes the errors summate according to the laws of chance. But since Woodworth's formula fails to hold, for example, for data on the judgment of lengths of lines compiled by Robinson and Robinson, Guilford proposes a recasting of the psychophysical laws in the form of a general power function:

$\Delta R_a = K B \frac{n}{a}$, in which K and n are experimental constants. In Weber's law n equals 1; in Cattell's law, 5.—A. G. Bills (Chicago).

1646. Moore, T. V. Multiple correlation and the correlation between general factors. *Cath. Univ. Amer. Stud. Psychol. & Psychiat.*, 1931, 3, No. 1. Pp. vii + 32.—The present study developed from the use of Salisbury's simplified method of determining weights. The problem of multiple correlation is placed upon the familiar ground of weights in a set of simultaneous equations. This simplified method of finding weights leads to a method of intercorrelating two general factors, or of correlating a general factor with another which may not be in the group of measures which have the general factor in their substrata.—D. S. Oberlin (Bryn Mawr).

1647. O'Neill, G. Social implications of mental testing. *Psychiat. Quar.*, 1931, 5, 701-709.—Problem children are not necessarily markedly inferior or superior to the average child. To determine their intellectual status the psychologist carefully selects the standardized tests best suited for an examination of the individual child. In dealing with a foreign-born child or the first-generation American-born child the potentiality of an inaccurate test usually exists. In most of these cases emotional factors are likely to cause a fluctuation of several points in the test results. The psychologist has in past years relied too much on both the MA and the IQ of a given child and neglected to interpret his findings. It is only recently that the thoroughly trained psychologist has employed routinely the techniques of psychiatry, psychology and psychiatric social work in his attempt to solve the problem of the child with behavior difficulties.—E. T. Burr (Vocational Adjustment Bureau).

1648. Wechsler, D. On the limits of human variability. *Psychol. Rev.*, 1932, 39, 87-90.—Starting with the assumption that all human traits are complex variables dependent on many factors, the author argues on mathematical grounds that the variability of any trait is equal to the product of the variabilities of all the component factors. He ultimately derives the equation $V_t = (1 + \frac{1}{n})^n = 2.7182$, which is identical with the limiting value of the organic rate of growth. Thus human variability is limited biologically by the law of organic rate of growth and its total range ratio cannot normally exceed 2.718:1.—A. G. Bills (Chicago).

1649. Wilson, E. B., & Hilferty, M. M. The distribution of chi-square. *Proc. Nat. Acad. Sci.*, 1931, 17, 684-688.—An approximation to the gamma function, which includes Stirling's formula as a special case, is developed. It is shown that $(\frac{\chi^2}{n})^{\frac{1}{2}}$ is normally distributed about $1 - \frac{2}{9n}$ with $\sigma^2 = \frac{2}{9n}$. This formula gives a very close approximation to the true value of χ^2 over a wide range and, when used with a probability table, can ordinarily eliminate the necessity for a table of χ^2 .—A. K. Kurtz (U. S. Civil Service Commission).

[See also abstract 1271.]

MENTAL TESTS

1650. Abadi, E. Intelligence et personnalité. (Intelligence and personality.) *Psychol. et vis.*, 1931, 5, 245-248.—*Math. H. Piéron* (Sorbonne).

1651. Armstrong, C. A study of the intelligence of rural and urban children. *J. Educ. Soc.*, 1931, 301-315.—A rural village group of 115 white boys and girls, born and bred in Bedford, Westchester County, N. Y., were given psychological tests. Their parents were of the small business and skilled labor classes.

The urban group of 328 American-born white boys and girls were from P. S. 6, 166, 157, New York City, all good neighborhoods. The children were 9 to 14 years of age and in grades 4 to 8. The tests were the Otis intermediate group test and two series of performance tests (Army Individual Performance Scale and Army Beta). In verbal and abstract intelligence the rural group is reliably superior to the foreign-parentage urban group. The data of the study lead to the conclusions that rural-village and urban children do not differ in intelligence, either verbal or concrete, if of American parentage of equivalent occupational class and equal school opportunity. Children of immigrants are inferior to children of American parentage, whether rural or urban, in a language or verbal ability undoubtedly necessary for success in many situations inextricably bound up in our civilization.—E. M. Achilles (Columbia).

1652. Brolyer, C. E. Sixth annual report of the commission on scholastic aptitude tests. New York: College Entrance Examination Board, 1931. Pp. 31.—The number of candidates was 8,805 (4,893 boys and 4,002 girls), and the examination was given in 358 places. Candidates were registered for the test if they applied for the examination fifteen hours before the beginning of the examination. Details concerning scoring errors are given. The intercorrelations arising from the three verbal sub-tests vary from .88 to .76 and are of the same order of magnitude as those of last year. The verbal and mathematical portions of the test are supposed to measure something different and the intercorrelations here are from .27 to .37. When examinations were taken in 1930 and repeated in 1931 the correlations between the first and second scores for the verbal portion were from .90 to .96, for the mathematical portion from .70 to .74. Persistence of individual idiosyncrasy is studied and results given. The girls show a narrower distribution of score in all the tests and have the better mean score in the verbal portion, while the boys show a higher mean score in the mathematical portion. The validity of the aptitude test varies according to the situation in which that measure of validity is determined (according to the various colleges and their standards). The validity data from several colleges is given.—E. B. Heim (Provo, Utah).

1653. Colucci, C. Valore pratico dei test mentali. (The practical value of mental tests.) *Atti VII. convegno psicol. sper. e psicotecn.*, Torino, 1929. Pp. 167-169.—A. Angyal (Turin).

1654. Kent, G. H. Oral test for emergency use in clinics. *Ment. Meas. Monog.*, 1932, No. 9. Pp. 50.—The test consists of 25 questions so arranged as to form three overlapping point scales, each scale having independent norms. The test as a whole is discriminative from 6 to 14 years. Tentative norms are based upon 500 cases. As the first five questions are common to all three scales, the examiner can decide in the natural course of the examination whether

to use the upper, middle or lower scale for this particular subject. Being thus adjustable to the individual subject, the test is especially convenient for the examination of a subject whose mentality is wholly unknown. The questions have been selected with reference to the need of making the test attractive, or at least not unduly irritating, to the adult subject who is not disposed to be responsive. The test can be presented and scored in 5-10 minutes. Its special purpose is to furnish a preliminary test convenient for use in jail, brief enough to be used by a physician as part of a psychiatric examination, simple enough to be presented in an unfurnished room, and inoffensive enough to be given to an intelligent adult without insulting him. Although intended primarily for adults, the test has been found useful also for children.—G. H. Kent (Danvers State Hospital).

1655. Lehnen, H. Ist die Binet-Simon Methode noch haltbar? (Is the Binet-Simon method still tenable?) *Hilfsschule*, 1931, 7, 385-389.—The author considers the basic defect of the method to lie in the condition that, after the first relevant question on the stated test, no further aid or encouragement is given to the subject. The examination should serve not only to determine what the child does not know, but also to disclose the causes and the appropriate manner of treatment. The Binet-Simon method, therefore, must be improved and enlarged by adding such tests as will make possible significant revelations on the psychic total structure of the personality.—W. Nolte (Berlin).

1656. Mayer, P. Vergleichende Eignungsprüfungen an Klassen höherer Lehranstalten. (Comparative aptitude tests in secondary schools.) *Vjsch. f. Jugendk.*, 1931, 1, 189-202.—The author gave tests of general intelligence and of aptitude for the pupil's vocational preference (technical, scientific, or business) to 973 boys in the Stuttgart gymnasien, *Oberreal- and Realschule*, and *Bürgerschule*. The purpose of the study was a social integration of the collective findings. The author considers his results (illustrated by numerous graphs) to be as much the result of cultural conditions as of intellectual ability, and he discusses particularly the influence of the students' attitudes on their accomplishment. The pupils of the *Bürgerschule* showed up well because the school discipline and spirit were good and the children were impressed with the importance of the step which they were about to take from school into employment. The gymnasien held the first place among the types of school, although the attitude of the pupils toward the tests was indifferent or bored. The author thinks this rank may denote an actual intellectual superiority of the students, correlated with their social standing. The *Realschule* did poorly, which the author considers is probably due to the lack of discipline and the fact that many modestly endowed boys are transferred to these schools or are pushed into them by ambitious parents. References.—M. E. Morse (Catonsville, Md.).

1657. Otte, A. Die Anwendung des Testheftes zur Untersuchung Schulentlassener, insbesondere zur Unterscheidung jugendlicher Schwachbegabter. (The application of the test to investigate those who have left school, especially to select the young defectives.) *Päd.-Psychol. Arbeit*, 1931, 19, 30-46.—The purpose of this experiment was to ascertain whether the test (see VI: 1256) which had been worked out with children at the elementary school level was applicable to children of higher age levels, particularly those who had left school, and whether it was useful in selecting the defectives among the latter. It was found entirely possible to separate the normal from the sub-normal group. The most marked differences between the groups were found in the opposites test and the test of combining parts into wholes. The correlation between the results of the tests and the teachers' opinion was .94. Age

seemed to make a difference only in the case of the opposites test.—D. S. Oberlin (Bryn Mawr).

1658. Street, R. F. A Gestalt completion test. *Teach. Coll. Contrib. Educ.*, 1931, No. 481. Pp. vii + 65.—The purpose is "to present data relevant to the construction of a test which is specific in nature; and to determine the relationship that exists between this and similar tests." A Gestalt completion test of 13 items was constructed. It did not correlate highly with other completion tests, or with intelligence tests. "There is no factor common to the five completion tests studied. . . . The data suggest that the Gestalt completion test measures a very specific capacity which is probably involved in the perceptual process." A bibliography contains 23 titles; the test pictures are clearly reproduced in an appendix.—J. M. Stalnaker (Chicago).

[See also abstract 1624.]

Recent additions to

Psychological Monographs

**University of Iowa Studies in
Psychology, No. XIV**

Edited by **CHRISTIAN RUCKMICK**

Monograph No. 187. 330 pp. \$4.00

**An Investigation of the Re-
sponses Made in Learning a
Multiple Choice Maze**

By **FREDERICK H. LUMLEY**

Monograph No. 189. 61 pp. \$1.00

**Modification of the Lid-Reflex
by Voluntarily Induced Sets**

By **HELEN PEAK**

Monograph No. 188. 68 pp. \$1.00

**An Experimental Study of
Apparent Movement**

By **SUGI MIBAI**

Monograph No. 190. 91 pp. \$1.50

Psychological Review Company

PRINCETON, N. J.

Announcement of Trips to German and Austrian Psychological Institutes at the Conclusion of the International Congress of Psychology in Copenhagen, August 22-27, 1932

By agreement with the German and Austrian members of the *Vorstand* of the International Society of Psychology, the *Vorstand* of the German *Gesellschaft für Psychologie* will arrange for foreign members to visit the larger German and Austrian psychological institutes after the Congress. The organization of the round trips is in the hands of Professor D. Katz, University of Rostock. At the earliest possible date Professor Katz will get in contact with the proper persons to carry out the suggestions of members who are interested. Additional announcements concerning these trips will be made later. For further information write to Professor D. Katz, University of Rostock, Germany.

PUBLICATIONS

OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

EDITED BY

HOWARD C. WARREN, PRINCETON UNIVERSITY (*Review*)
S. W. FERNBERGER, UNIVERSITY OF PENNSYLVANIA (*J. Exper. Psych.*)
WALTER S. HUNTER, CLARK UNIVERSITY (*Index and Abstracts*)
HENRY T. MOORE, SKIDMORE COLLEGE (*J. Abn. and Soc. Psychol.*)
HERBERT S. LANGFELD, PRINCETON UNIVERSITY (*Monographs*)
EDWARD S. ROBINSON, YALE UNIVERSITY (*Bulletin*)

HERBERT S. LANGFELD, Business Editor

PSYCHOLOGICAL REVIEW

containing original contributions only, appears bi-monthly, January, March, May, July, September, and November, the six numbers comprising a volume of about 540 pages.

PSYCHOLOGICAL BULLETIN

containing critical reviews of books and articles, psychological news and notes, university notices, and announcements, appears monthly (10 numbers), the annual volume comprising about 720 pages. Special issues of the BULLETIN consist of general reviews of recent work in some department of psychology.

JOURNAL OF EXPERIMENTAL PSYCHOLOGY

containing original contributions of an experimental character, appears bi-monthly, February, April, June, August, October, and December, the six numbers comprising a volume of about 700 pages from Jan. 1, 1932.

PSYCHOLOGICAL INDEX

is a compendious bibliography of books, monographs, and articles upon psychological and cognate topics that have appeared during the year. The INDEX is issued annually in June, and may be subscribed for in connection with the periodicals above, or purchased separately.

PSYCHOLOGICAL ABSTRACTS

appears monthly, the twelve numbers and an index supplement making a volume of about 700 pages. The journal is devoted to the publication of non-critical abstracts of the world's literature in psychology and closely related subjects.

PSYCHOLOGICAL MONOGRAPHS

consist of longer researches or treatises or collections of laboratory studies which it is important to publish promptly and as units. The price of single numbers varies according to their size. The MONOGRAPHS appear at irregular intervals and are gathered into volumes of about 500 pages.

JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY

appears quarterly, April, July, October, January, the four numbers comprising a volume of 448 pages. The journal contains original contributions in the field of abnormal and social psychology, reviews, notes and news.

ANNUAL SUBSCRIPTION RATES

Review: \$5.50 (Foreign, \$5.75). Index: \$4.00 per volume.

Journal: \$7.00 (Foreign, \$7.25). Monographs: \$6.00 per volume (Foreign, \$6.30).

Bulletin: \$6.00 (Foreign, \$6.25). Abstracts: \$6.00 (Foreign, \$6.25).

Abnormal and Social: \$5.00 (Foreign, \$5.25). Single copies \$1.50.

Current numbers: Journal, \$1.25; Review, \$1.00; Abstracts, 75c; Bulletin, 60c.

COMBINATION RATES (from Jan. 1, 1932)

Review and Bulletin: \$10.00 (Foreign, \$10.50).

Review and J. Exp.: \$11.00 (Foreign, \$11.50).

Bulletin and J. Exp.: \$12.00 (Foreign, \$12.50).

Review, Bulletin, and J. Exp.: \$16.00 (Foreign, \$16.75).

Review, Bulletin, J. Exp., and Index: \$19.00 (Foreign, \$19.75).

Subscriptions, orders, and business communications should be sent to the

PSYCHOLOGICAL REVIEW COMPANY

PRINCETON, N. J.

Social Science Abstracts

USE IT as a
periodical
guide, *because—*

IT COVERS 4,000 periodicals. It is selective, including only important contributions. It goes beyond bibliographical listing by providing abstracts which summarize the contents of the article.

USE IT as a
reference
work, *because—*

IT IS always up-to-date, making available the material in the current magazines. It is comprehensive—as witness the 36,000 topical entries in the annual index. Because nowhere else can you get so much so compactly.

Moreover—you will find SOCIAL SCIENCE ABSTRACTS
is good reading.

Social Science Abstracts

611 Fayerweather Hall, Columbia University, New York

\$6 a year in the U. S. \$6.50 elsewhere. Back numbers from Vol. I (1929), unbound, \$6; bound, \$7.50. Postage extra.



THE CENTURY PSYCHOLOGY SERIES

RICHARD M. ELLIOTT, Ph.D., *Editor*

PURPOSIVE BEHAVIOR IN ANIMALS AND MEN

EDWARD C. TOLMAN, Ph.D.

Professor of Psychology, University of California

In this book Dr. Tolman presents a new system of psychology which he designates as *Purposive Behaviorism*. From a series of investigations of the learning of rats, cats, monkeys, apes, and men, he has evolved a new theory of the learning process which he describes as that of "sign-gestalt" formation, the cultivation of a form of proof, and which he contrasts with the "conditioned reflex," the "trial and error," and the "Gestalt" doctrines of learning. *Royal octavo, 463 pages. \$5.00.*

DIAGNOSING PERSONALITY AND CONDUCT

PERCIVAL M. SYMONDS, Ph.D.

Associate Professor of Education, Teachers College, Columbia

Here for the first time are described in readable form the various devices and techniques which psychologists have found to be of practical value in studying the personality of an individual and evaluating his behavior. The book is adapted for use in advanced courses in psychology and should prove valuable to social workers, psychologists, psychiatrists, and educators. *Royal octavo, 602 pages. \$4.00.*

ASSOCIATION THEORY TODAY

EDWARD S. ROBINSON, Ph.D.

Professor of Psychology, Yale University

This book attempts to establish the fact that there is a tenable theory of association which is not a philosophy of mind, but a fruitful conception with definite indications for further experimentation and clearer definition. It endeavors to adjust the traditional theory of association to those improvements in knowledge of fact and definition of terms which are the product of recent research. *Octavo, 142 pages. \$1.50.*

THE WILD BOY OF AVEYRON

GEORGE AND MURIEL HUMPHREY

This is the first complete translation of Gaspard Itard's classic report of his endeavor to educate a "wild" boy captured in the south of France in 1799. Although frequently quoted, the original work, *Rapports et Mémoires sur le Sauvage de l'Aveyron*, is now out of print and is extremely scarce. Itard's account of his methods of dealing with the boy and their result, written in a style that is singularly clear and precise, is a document of importance and at the same time one that is remarkable for its human interest. *Octavo, 104 pages. \$1.25.*

253 FOURTH AVENUE
NEW YORK

THE CENTURY CO.

PUBLISHERS OF THE NEW CENTURY DICTIONARY

2126 PRAIRIE AVENUE
CHICAGO

